



Blast 2 Sequences results

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Taxonomy

Structure

BLAST 2 SEQUENCES RESULTS VERSION BLASTN 2.2.17 [Aug-26-2007]

Match: 1 Mismatch: -2 gap open: 5 gap extension: 2

x_dropoff: 0 expect: 10.000 wordsize: 11 Filter View option Standard

Masking character option X for protein, n for nucleotide

Masking color option Black

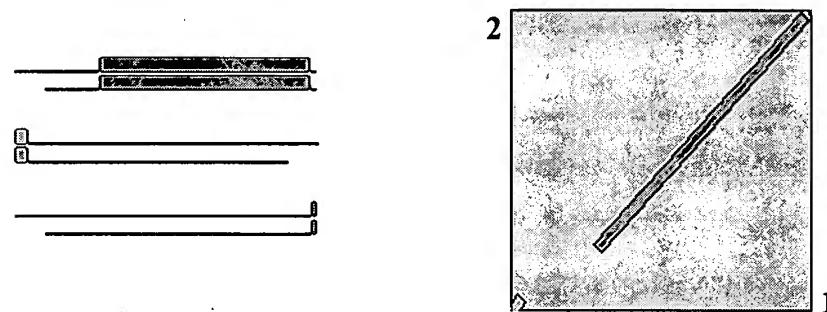
Show CDS translation Align

Sequence 1: gi|5420376|Hepatitis C virus type 1b complete genome, isolate Con1

Length = 9604 (1 .. 9605)

Sequence 2: gi|5441831|Hepatitis C virus replicon I377/NS2-3'UTR

Length = 8636 (1 .. 8637)



NOTE: Bitscore and expect value are calculated based on the size of the nr database.

NOTE: If protein translation is reversed, please repeat the search with reverse strand of the query sequence.



Score = 1.261e+04 bits (6560), Expect = 0.0
 Identities = 6646/6646 (100%), Gaps = 0/6646 (0%)
 Strand=Plus/Plus

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| CDS:polyprotein [Hep | 809 | A M D R E M A A S C G G A V F V G L I |
| Query | 2767 | CCATGGACCGGGAGATGGCAGCATCGTGCAGGGCGCGTTTCGTAGGTCTGATA |
| Sbjct | 1799 | |
| CDS:non-structural p | 1 | M D R E M A A S C G G A V F V G L I |
| CDS:polyprotein [Hep | 829 | L T L S P H Y K L F L A R L I W W L Q |
| Query | 2827 | TGACCTTGTCAACCGCACTATAAGCTGTTCTCGCTAGGCTCATATGGTGGTTACAA |
| Sbjct | 1859 | |

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| CDS:non-structural p | 20 | L T L S P H Y K L F L A R L I W W L Q |
| CDS:polyprotein [Hep Query | 849 2887 | F I T R A E A H L Q V W I P P L N V R TTATCACCAGGGCCGAGGCACACTTGCAAGTGTGGATCCCCCCCCTAACGTCGG |
| Sbjct | 1919 | TTATCACCAGGGCCGAGGCACACTTGCAAGTGTGGATCCCCCCCCTAACGTCGG |
| CDS:non-structural p | 40 | F I T R A E A H L Q V W I P P L N V R |
| CDS:polyprotein [Hep Query | 869 2947 | G R D A V I L L T C A I H P E L I F T GCCGCGATGCCGTACATCCTCCTCACGTGCGCGATCCACCCAGAGCTAAATCTTACC |
| Sbjct | 1979 | GCCGCGATGCCGTACATCCTCCTCACGTGCGCGATCCACCCAGAGCTAAATCTTACC |
| CDS:non-structural p | 60 | G R D A V I L L T C A I H P E L I F T |
| CDS:polyprotein [Hep Query | 889 3007 | T K I L L A I L G P L M V L Q A G I T CCAAAATCTTGCTGCCATACTCGGTCCACTCATGGTGCTCCAGGCTGGTATAACC |
| Sbjct | 2039 | CCAAAATCTTGCTGCCATACTCGGTCCACTCATGGTGCTCCAGGCTGGTATAACC |
| CDS:non-structural p | 80 | T K I L L A I L G P L M V L Q A G I T |
| CDS:polyprotein [Hep Query | 909 3067 | V P Y F V R A H G L I R A C M L V R K TGCCGTACTTCGTGCGCGCACACGGGCTATTGTGCATGCATGCTGGTGCAG |
| Sbjct | 2099 | TGCCGTACTTCGTGCGCGCACACGGGCTATTGTGCATGCATGCTGGTGCAG |
| CDS:non-structural p | 100 | V P Y F V R A H G L I R A C M L V R K |
| CDS:polyprotein [Hep Query | 929 3127 | A G G H Y V Q M A L M K L A A L T G T CTGGGGGTCAATTATGTCAAATGGCTCTCATGAAGTTGGCCGACTGACAGGTACG |
| Sbjct | 2159 | CTGGGGGTCAATTATGTCAAATGGCTCTCATGAAGTTGGCCGACTGACAGGTACG |
| CDS:non-structural p | 120 | A G G H Y V Q M A L M K L A A L T G T |
| CDS:polyprotein [Hep Query | 949 3187 | V Y D H L T P L R D W A H A G L R D L TTTATGACCATCTCACCCACTGCGGGACTGGGCCACGCGGGCTACGAGACCTT |
| Sbjct | 2219 | TTTATGACCATCTCACCCACTGCGGGACTGGGCCACGCGGGCTACGAGACCTT |
| CDS:non-structural p | 140 | V Y D H L T P L R D W A H A G L R D L |
| CDS:polyprotein [Hep Query | 969 3247 | V A V E P V V F S D M E T K V I T W G TGGCAGTTGAGCCCGTCTTCTCTGATATGGAGACCAAGGTTATCACCTGGGG |
| Sbjct | 2279 | TGGCAGTTGAGCCCGTCTTCTCTGATATGGAGACCAAGGTTATCACCTGGGG |
| CDS:non-structural p | 160 | V A V E P V V F S D M E T K V I T W G |
| CDS:polyprotein [Hep Query | 989 3307 | D T A A C G D I I L G L P V S A R R G ACACCGCGCGTGTGGGACATCATCTGGGCTGCCGTCTCCGCCAGGGGG |
| Sbjct | 2339 | ACACCGCGCGTGTGGGACATCATCTGGGCTGCCGTCTCCGCCAGGGGG |
| CDS:non-structural p | 180 | D T A A C G D I I L G L P V S A R R G |
| CDS:polyprotein [Hep Query | 1009 3367 | E I H L G P A D S L E G Q G W R L L A AGATACATCTGGGACCGGCAGACAGCCTTGAAGGGCAGGGGTGGCGACTCCTCGCG |
| Sbjct | 2399 | AGATACATCTGGGACCGGCAGACAGCCTTGAAGGGCAGGGGTGGCGACTCCTCGCG |
| CDS:non-structural p | 200 | E I H L G P A D S L E G Q G W R L L A |
| CDS:polyprotein [Hep Query | 1029 3427 | I T A Y S Q Q T R G L L G C I I T S L TTACGGCCTACTCCAAACAGACGCGAGGCCTACTTGGCTGCATCATCACTAGCCTC |
| Sbjct | 2459 | TTACGGCCTACTCCAAACAGACGCGAGGCCTACTTGGCTGCATCATCACTAGCCTC |

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| CDS:non-structural p | 220 | I T A Y S Q Q T R G L L G C I I T S L |
| CDS:polyprotein [Hep Query | 1049 | G R D R N Q V E G E V Q V V S T A T Q |
| | 3487 | GCCGGGACAGGAACCAGGTCGAGGGGAGGTCCAAGTGGTCTCCACCGAACACAA |
| Sbjct | 2519 | |
| CDS:non-structural p | 240 | G C G G A C A C G G A A C C A G G T C G A G G G G A G G T C C A A G T G G T C T C C A C C G A A C A C A A |
| CDS:polyprotein [Hep Query | 1069 | F L A T C V N G V C W T V Y H G A G S |
| | 3547 | TCCTGGCGACCTGCGTCAATGGCGTGTGGACTGTCTATCATGGTGCCTGCTCA |
| Sbjct | 2579 | |
| CDS:non-structural p | 260 | F L A T C V N G V C W T V Y H G A G S |
| CDS:polyprotein [Hep Query | 1089 | T L A G P K G P I T Q M Y T N V D Q D |
| | 3607 | CCCTTGCCGGCCAAAGGGCCAATACCCAAATGTACACCAATGTGGACCAGGAC |
| Sbjct | 2639 | |
| CDS:non-structural p | 280 | T L A G P K G P I T Q M Y T N V D Q D |
| CDS:polyprotein [Hep Query | 1109 | V G W Q A P P G A R S L T P C T C G S |
| | 3667 | TCGGCTGGCAAGCGCCCCCGGGCGCGTCTTGACACCATGCACCTGCGGCAGC |
| Sbjct | 2699 | |
| CDS:non-structural p | 300 | V G W Q A P P G A R S L T P C T C G S |
| CDS:polyprotein [Hep Query | 1129 | D L Y L V T R H A D V I P V R R R G D |
| | 3727 | ACCTTTACTTGGTCACGAGGCATGCCATGTCAATTCCGGTGCACGGGGCGAC |
| Sbjct | 2759 | |
| CDS:non-structural p | 320 | D L Y L V T R H A D V I P V R R R G D |
| CDS:polyprotein [Hep Query | 1149 | R G S L L S P R P V S Y L K G S S G G |
| | 3787 | GGGGGAGCCTACTCTCCCCAGGCCGTCTCTACTTGAAGGGCTCTCGGGCGGT |
| Sbjct | 2819 | |
| CDS:non-structural p | 340 | R G S L L S P R P V S Y L K G S S G G |
| CDS:polyprotein [Hep Query | 1169 | L L C P S G H A V G I F R A A V C T R |
| | 3847 | TGCTCTGCCCTCGGGCACGCTGTGGCATCTTCGGCTGCCGTGCAACCGA |
| Sbjct | 2879 | |
| CDS:non-structural p | 360 | L L C P S G H A V G I F R A A V C T R |
| CDS:polyprotein [Hep Query | 1189 | V A K A V D F V P V E S M E T T M R S |
| | 3907 | TTGCGAAGGCAGGTGGACTTGTACCCGTCGAGTCATGGAAACCACATAGCGGTCC |
| Sbjct | 2939 | |
| CDS:non-structural p | 380 | V A K A V D F V P V E S M E T T M R S |
| CDS:polyprotein [Hep Query | 1209 | V F T D N S S P P A V P Q T F Q V A H |
| | 3967 | TCTTCACGGACAACCTCGTCCCCCTCGGCCGTACCGCAGACATTCCAGGTGGCCCAT |
| Sbjct | 2999 | |
| CDS:non-structural p | 400 | V F T D N S S P P A V P Q T F Q V A H |
| CDS:polyprotein [Hep Query | 1229 | H A P T G S G K S T K V P A A Y A A Q |
| | 4027 | ACGCCCTACTGGTAGCGCAAGAGCACTAAGGTGCCGGCTCGTATGCAGCCAA |
| Sbjct | 3059 | |
| | | ACGCCCTACTGGTAGCGCAAGAGCACTAAGGTGCCGGCTCGTATGCAGCCAA |

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| CDS:non-structural p | 420 | H A P T G S G K S T K V P A A Y A A Q |
| CDS:polyprotein [Hep Query | 1249 | Y K V L V L N P S V A A T L G F G A Y |
| | 4087 | ATAAGGTGCTTGTCCCTGAACCCGTCCCGCCACCCCTAGGTTTCGGGGCGTAT |
| Sbjct | 3119 | |
| CDS:non-structural p | 440 | ATAAGGTGCTTGTCCCTGAACCCGTCCCGCCACCCCTAGGTTTCGGGGCGTAT |
| CDS:polyprotein [Hep Query | 1269 | Y K V L V L N P S V A A T L G F G A Y |
| | 4147 | S K A H G I D P N I R T G V R T I T T |
| Sbjct | 3179 | CTAAGGCACATGGTATCGACCCTAACATCAGAACCGGGTAAGGACCATCACCACG |
| CDS:non-structural p | 460 | |
| CDS:polyprotein [Hep Query | 1289 | S K A H G I D P N I R T G V R T I T T |
| | 4207 | A P I T Y S T Y G K F L A D G G C S G |
| Sbjct | 3239 | CCCCCATCACGTACTCCACCTATGGCAAGTTCTGCCGACGGTGGTGTCTGGG |
| CDS:non-structural p | 480 | |
| A P I T Y S T Y G K F L A D G G C S G | | |
| CDS:polyprotein [Hep Query | 1309 | A Y D I I I C D E C H S T D S T T I L |
| | 4267 | CCTATGACATCATAATATGTGATGAGTGCCACTCAACTGACTCGACCCTATCCTG |
| Sbjct | 3299 | |
| CDS:non-structural p | 500 | CCTATGACATCATAATATGTGATGAGTGCCACTCAACTGACTCGACCCTATCCTG |
| A Y D I I I C D E C H S T D S T T I L | | |
| CDS:polyprotein [Hep Query | 1329 | I G T V L D Q A E T A G A R L V V L A |
| | 4327 | TCGGCACAGTCCTGGACCAAGCGGAGACGGCTGGAGCGCGACTCGTCGTGCTCGCC |
| Sbjct | 3359 | |
| CDS:non-structural p | 520 | TCGGCACAGTCCTGGACCAAGCGGAGACGGCTGGAGCGCGACTCGTCGTGCTCGCC |
| I G T V L D Q A E T A G A R L V V L A | | |
| CDS:polyprotein [Hep Query | 1349 | I G T V L D Q A E T A G A R L V V L A |
| | 4387 | A T P P G S V T V P H P N I E E V A L |
| Sbjct | 3419 | CTACGCCCTCCGGGATCGGTACCGTGCCACATCCAAACATCGAGGAGGTGGCTCTG |
| CDS:non-structural p | 540 | |
| A T P P G S V T V P H P N I E E V A L | | |
| CDS:polyprotein [Hep Query | 1369 | A T P P G S V T V P H P N I E E V A L |
| | 4447 | CTACGCCCTCCGGGATCGGTACCGTGCCACATCCAAACATCGAGGAGGTGGCTCTG |
| Sbjct | 3479 | |
| CDS:non-structural p | 560 | CTACGCCCTCCGGGATCGGTACCGTGCCACATCCAAACATCGAGGAGGTGGCTCTG |
| A T P P G S V T V P H P N I E E V A L | | |
| CDS:polyprotein [Hep Query | 1389 | S T G E I P F Y G K A I P I E T I K G |
| | 4507 | GCACGGAGAAATCCCCTTTATGGCAAAGCCATCCCCATCGAGACCATCAAGGGG |
| Sbjct | 3539 | |
| CDS:non-structural p | 580 | GCACGGAGAAATCCCCTTTATGGCAAAGCCATCCCCATCGAGACCATCAAGGGG |
| R H L I F C H S K K C D E L A A K L | | |
| CDS:polyprotein [Hep Query | 1409 | S T G E I P F Y G K A I P I E T I K G |
| | 4567 | GCACGGAGAAATCCCCTTTATGGCAAAGCCATCCCCATCGAGACCATCAAGGGG |
| Sbjct | 3599 | |
| CDS:non-structural p | 600 | GCACGGAGAAATCCCCTTTATGGCAAAGCCATCCCCATCGAGACCATCAAGGGG |
| R H L I F C H S K K C D E L A A K L | | |
| CDS:polyprotein [Hep Query | 1429 | G L G L N A V A Y Y R G L D V S V I P |
| | 4627 | GCCTCGGACTCAATGCTGTAGCATATTACCGGGCCTGATGTATCCGTACATACCA |
| Sbjct | 3659 | |
| CDS:non-structural p | 600 | GCCTCGGACTCAATGCTGTAGCATATTACCGGGCCTGATGTATCCGTACATACCA |
| G L G L N A V A Y Y R G L D V S V I P | | |
| CDS:polyprotein [Hep Query | 1429 | G L G L N A V A Y Y R G L D V S V I P |
| | 4627 | GCACGGAGACGTCAATGCTGTAGCATATTACCGGGCCTGATGTATCCGTACATACCA |
| Sbjct | 3659 | |
| G L G L N A V A Y Y R G L D V S V I P | | |

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| CDS:non-structural p | 620 | S G D V I V V A T D A L M T G F T G D |
| CDS:polyprotein [Hep Query | 1449 | D S V I D C N T C V T Q T V D F S L D |
| | 4687 | ACTCAGTGATCGACTGCAATACATGTGTCACCCAGACAGTCGACTTCAGCCTGGAC |
| Sbjct | 3719 | ACTCAGTGATCGACTGCAATACATGTGTCACCCAGACAGTCGACTTCAGCCTGGAC |
| CDS:non-structural p | 640 | D S V I D C N T C V T Q T V D F S L D |
| CDS:polyprotein [Hep Query | 1469 | T F T I E T T T V P Q D A V S R S Q R |
| | 4747 | CCTTCACCATTGAGACGACCGTGCCACAAGACGCGGTGTCACGCTCGCAGCGG |
| Sbjct | 3779 | CCTTCACCATTGAGACGACCGTGCCACAAGACGCGGTGTCACGCTCGCAGCGG |
| CDS:non-structural p | 660 | T F T I E T T T V P Q D A V S R S Q R |
| CDS:polyprotein [Hep Query | 1489 | G R T G R G R M G I Y R F V T P G E R |
| | 4807 | GCAGGACTGGTAGGGCAGGATGGGCATTACAGGTTGTGACTCCAGGAGAACGG |
| Sbjct | 3839 | GCAGGACTGGTAGGGCAGGATGGGCATTACAGGTTGTGACTCCAGGAGAACGG |
| CDS:non-structural p | 680 | G R T G R G R M G I Y R F V T P G E R |
| CDS:polyprotein [Hep Query | 1509 | S G M F D S S V L C E C Y D A G C A W |
| | 4867 | CGGGCATGTTCGATTCTCGGTTCTGTGCGAGTGCATGACGCGGGCTGTGCTTGG |
| Sbjct | 3899 | CGGGCATGTTCGATTCTCGGTTCTGTGCGAGTGCATGACGCGGGCTGTGCTTGG |
| CDS:non-structural p | 700 | S G M F D S S V L C E C Y D A G C A W |
| CDS:polyprotein [Hep Query | 1529 | E L T P A E T S V R L R A Y L N T P G |
| | 4927 | AGCTCACGCCGCCGAGACCTCAGTTAGGTTGCGGGCTTACCTAAACACACCAGGG |
| Sbjct | 3959 | AGCTCACGCCGCCGAGACCTCAGTTAGGTTGCGGGCTTACCTAAACACACCAGGG |
| CDS:non-structural p | 720 | E L T P A E T S V R L R A Y L N T P G |
| CDS:polyprotein [Hep Query | 1549 | P V C Q D H L E F W E S V F T G L T H |
| | 4987 | CCGTCTGCCAGGACCATCTGGAGTTCTGGGAGAGCGTCTTACAGGCCCTACCCAC |
| Sbjct | 4019 | CCGTCTGCCAGGACCATCTGGAGTTCTGGGAGAGCGTCTTACAGGCCCTACCCAC |
| CDS:non-structural p | 740 | P V C Q D H L E F W E S V F T G L T H |
| CDS:polyprotein [Hep Query | 1569 | D A H F L S Q T K Q A G D N F P Y L V |
| | 5047 | ACGCCCATTTCTGTCCCAGACTAACGAGGCAGGAGACAACCTCCCTACCTGGTA |
| Sbjct | 4079 | ACGCCCATTTCTGTCCCAGACTAACGAGGCAGGAGACAACCTCCCTACCTGGTA |
| CDS:non-structural p | 760 | D A H F L S Q T K Q A G D N F P Y L V |
| CDS:polyprotein [Hep Query | 1589 | Y Q A T V C A R A Q A P P P S W D Q M |
| | 5107 | ACCAGGCTACGGTGTGCGCCAGGGCTCAGGCTCCACCTCCATCGTGGGACCAAATG |
| Sbjct | 4139 | ACCAGGCTACGGTGTGCGCCAGGGCTCAGGCTCCACCTCCATCGTGGGACCAAATG |
| CDS:non-structural p | 780 | Y Q A T V C A R A Q A P P P S W D Q M |
| CDS:polyprotein [Hep Query | 1609 | K C L I R L K P T L H G P T P L L Y R |
| | 5167 | AGTGTCTCATACGGCTAAAGCCTACGCTGCACGGGCAACGCCCTGCTGTATAGG |
| Sbjct | 4199 | AGTGTCTCATACGGCTAAAGCCTACGCTGCACGGGCAACGCCCTGCTGTATAGG |
| CDS:non-structural p | 800 | K C L I R L K P T L H G P T P L L Y R |
| CDS:polyprotein [Hep Query | 1629 | G A V Q N E V T T T H P I T K Y I M A |
| | 5227 | GAGCCGTTCAAAACGAGGTTACTACCACACACCCATAACCAAATACATCATGGCA |
| Sbjct | 4259 | GAGCCGTTCAAAACGAGGTTACTACCACACACCCATAACCAAATACATCATGGCA |

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| CDS:non-structural p | 820 | G A V Q N E V T T T H P I T K Y I M A |
| CDS:polyprotein [Hep Query | 1649 | M S A D L E V V T S T W V L V G G V L |
| | 5287 | TGTCGGCTGACCTGGAGGTCTCACGAGCACCTGGGTGCTGGTAGGCGGAGTCCTA |
| Sbjct | 4319 | TGTCGGCTGACCTGGAGGTCTCACGAGCACCTGGGTGCTGGTAGGCGGAGTCCTA |
| CDS:non-structural p | 840 | M S A D L E V V T S T W V L V G G V L |
| CDS:polyprotein [Hep Query | 1669 | A L A A Y C L T T G S V V I V G R I I |
| | 5347 | CTCTGGCCGCGTATTGCCTGACAACAGGCAGCGTGGTCATTGTGGGCAGGATCATC |
| Sbjct | 4379 | CTCTGGCCGCGTATTGCCTGACAACAGGCAGCGTGGTCATTGTGGGCAGGATCATC |
| CDS:non-structural p | 860 | A L A A Y C L T T G S V V I V G R I I |
| CDS:polyprotein [Hep Query | 1689 | S G K P A I I P D R E V L Y R E F D E |
| | 5407 | CCGGAAAGCCGGCCATCATTCCGACAGGAAGTCCTTACCGGGAGTCGATGAG |
| Sbjct | 4439 | CCGGAAAGCCGGCCATCATTCCGACAGGAAGTCCTTACCGGGAGTCGATGAG |
| CDS:non-structural p | 880 | S G K P A I I P D R E V L Y R E F D E |
| CDS:polyprotein [Hep Query | 1709 | E E C A S H L P Y I E Q G M Q L A E Q |
| | 5467 | AAGAGTGCCTCACACCTCCCTACATCGAACAGGAATGCAGCTGCCGAACAA |
| Sbjct | 4499 | AAGAGTGCCTCACACCTCCCTACATCGAACAGGAATGCAGCTGCCGAACAA |
| CDS:non-structural p | 900 | E E C A S H L P Y I E Q G M Q L A E Q |
| CDS:polyprotein [Hep Query | 1729 | K Q K A I G L L Q T A T K Q A E A A A |
| | 5527 | AACAGAAGGCAATCGGTTGCTGCAAACAGCCACCAAGCAAGCGGAGGCTGCTGCT |
| Sbjct | 4559 | AACAGAAGGCAATCGGTTGCTGCAAACAGCCACCAAGCAAGCGGAGGCTGCTGCT |
| CDS:non-structural p | 920 | K Q K A I G L L Q T A T K Q A E A A A |
| CDS:polyprotein [Hep Query | 1749 | V V E S K W R T L E A F W A K H M W N |
| | 5587 | TGGTGGAAATCCAAGTGGCGGACCTCGAACGCCTCTGGGCGAACATATGTGGAAAT |
| Sbjct | 4619 | TGGTGGAAATCCAAGTGGCGGACCTCGAACGCCTCTGGGCGAACATATGTGGAAAT |
| CDS:non-structural p | 940 | V V E S K W R T L E A F W A K H M W N |
| CDS:polyprotein [Hep Query | 1769 | I S G I Q Y L A G L S T L P G N P A I |
| | 5647 | TCAGCGGGATACAATATTAGCAGGCTTGTCCACTCTGCCTGGCAACCCCGCGATA |
| Sbjct | 4679 | TCAGCGGGATACAATATTAGCAGGCTTGTCCACTCTGCCTGGCAACCCCGCGATA |
| CDS:non-structural p | 960 | I S G I Q Y L A G L S T L P G N P A I |
| CDS:polyprotein [Hep Query | 1789 | S L M A F T A S I T S P L T T Q H T L |
| | 5707 | CACTGATGGCATTACAGCCTCTATCACCAAGCCGCTCACCAACACATACCCCTC |
| Sbjct | 4739 | CACTGATGGCATTACAGCCTCTATCACCAAGCCGCTCACCAACACATACCCCTC |
| CDS:non-structural p | 980 | S L M A F T A S I T S P L T T Q H T L |
| CDS:polyprotein [Hep Query | 1809 | F N I L G G W V A A Q L A P P S A A S |
| | 5767 | TTAACATCCTGGGGGATGGGTGGCCGCCAACCTGCTCCTCCCAGCGCTGCTTCT |
| Sbjct | 4799 | TTAACATCCTGGGGGATGGGTGGCCGCCAACCTGCTCCTCCCAGCGCTGCTTCT |
| CDS:non-structural p | 1000 | F N I L G G W V A A Q L A P P S A A S |
| CDS:polyprotein [Hep Query | 1829 | F V G A G I A G A A V G S I G L G K V |
| | 5827 | TCGTAGGCGCCGGCATCGCTGGAGCGGCTGTTGGCAGCATAGGCCTGGGAAGGTG |
| Sbjct | 4859 | TCGTAGGCGCCGGCATCGCTGGAGCGGCTGTTGGCAGCATAGGCCTGGGAAGGTG |

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| CDS:non-structural p | 1020 | F V G A G I A G A A V G S I G L G K V |
| CDS:polyprotein [Hep Query | 1849 | V D I L A G Y G A G V A G A L V A F K |
| | 5887 | TGGATATTTGGCAGGTTATGGAGCAGGGTGGCAGGCGCCTCGTGGCCTTAAG |
| Sbjct | 4919 | TGGATATTTGGCAGGTTATGGAGCAGGGTGGCAGGCGCCTCGTGGCCTTAAG |
| CDS:non-structural p | 1040 | V D I L A G Y G A G V A G A L V A F K |
| CDS:polyprotein [Hep Query | 1869 | M S G E M P S T E D L V N L L P A I L |
| | 5947 | TGAGCGCGAGATGCCCTCCACCGAGGACCTGGTTACCTACTCCCTGCTATCCTC |
| Sbjct | 4979 | TGAGCGCGAGATGCCCTCCACCGAGGACCTGGTTACCTACTCCCTGCTATCCTC |
| CDS:non-structural p | 1060 | M S G E M P S T E D L V N L L P A I L |
| CDS:polyprotein [Hep Query | 1889 | P G A L V V G V V C A A I L R R H V G |
| | 6007 | CTGGCCCTAGTCGTGGGTCGTGCGCAGCGATACTCGTCGGCACGTGGC |
| Sbjct | 5039 | CTGGCCCTAGTCGTGGGTCGTGCGCAGCGATACTCGTCGGCACGTGGC |
| CDS:non-structural p | 1080 | P G A L V V G V V C A A I L R R H V G |
| CDS:polyprotein [Hep Query | 1909 | G E G A V Q W M N R L I A F A S R G N |
| | 6067 | GGGAGGGGCTGTGCAGTGGATGAACCGGCTGATAGCGTTCGCTCGGGGTAAC |
| Sbjct | 5099 | GGGAGGGGCTGTGCAGTGGATGAACCGGCTGATAGCGTTCGCTCGGGGTAAC |
| CDS:non-structural p | 1100 | G E G A V Q W M N R L I A F A S R G N |
| CDS:polyprotein [Hep Query | 1929 | V S P T H Y V P E S D A A A R V T Q I |
| | 6127 | TCTCCCCACGCACTATGTGCCTGAGAGCGACGCTGCAGCACGTGTCAGATC |
| Sbjct | 5159 | TCTCCCCACGCACTATGTGCCTGAGAGCGACGCTGCAGCACGTGTCAGATC |
| CDS:non-structural p | 1120 | V S P T H Y V P E S D A A A R V T Q I |
| CDS:polyprotein [Hep Query | 1949 | S S L T I T Q L L K R L H Q W I N E D |
| | 6187 | CTAGTCTTACCATCACTCAGCTGCTGAAGAGGCTTCACCAGTGGATCAACGAGGAC |
| Sbjct | 5219 | CTAGTCTTACCATCACTCAGCTGCTGAAGAGGCTTCACCAGTGGATCAACGAGGAC |
| CDS:non-structural p | 1140 | S S L T I T Q L L K R L H Q W I N E D |
| CDS:polyprotein [Hep Query | 1969 | S T P C S G S W L R D V W D W I C T V |
| | 6247 | CCACGCCATGCTCCGGCTCGTGGCTAACAGAGATGTTGGATTGGATATGCACGGTG |
| Sbjct | 5279 | CCACGCCATGCTCCGGCTCGTGGCTAACAGAGATGTTGGATTGGATATGCACGGTG |
| CDS:non-structural p | 1160 | S T P C S G S W L R D V W D W I C T V |
| CDS:polyprotein [Hep Query | 1989 | T D F K T W L Q S K L L P R L P G V P |
| | 6307 | CTGATTCAAGACCTGGCTCCAGTCCAAGCTCCTGCCGCATTGCCGGAGTC |
| Sbjct | 5339 | CTGATTCAAGACCTGGCTCCAGTCCAAGCTCCTGCCGCATTGCCGGAGTC |
| CDS:non-structural p | 1180 | T D F K T W L Q S K L L P R L P G V P |
| CDS:polyprotein [Hep Query | 2009 | F S C Q R G Y K G V W R G D G I M Q T |
| | 6367 | TCTCATGTCAACGTGGTACAAGGGAGTCTGGCGGGCGACGGCATCATGCAAACC |
| Sbjct | 5399 | TCTCATGTCAACGTGGTACAAGGGAGTCTGGCGGGCGACGGCATCATGCAAACC |
| CDS:non-structural p | 1200 | F S C Q R G Y K G V W R G D G I M Q T |
| CDS:polyprotein [Hep Query | 2029 | C P C G A Q I T G H V K N G S M R I V |
| | 6427 | GCCCCATGTGGAGCACAGATCACCGGACATGTGAAAAACGGTTCCATGAGGATCGTG |
| Sbjct | 5459 | GCCCCATGTGGAGCACAGATCACCGGACATGTGAAAAACGGTTCCATGAGGATCGTG |

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| CDS:non-structural p | 1220 | C P C G A Q I T G H V K N G S M R I V |
| CDS:polyprotein [Hep Query | 2049 | P R T C S N T W H G T F P I N A Y T T |
| | 6487 | CTAGGACCTGTAGTAACACGTGGCATGGAACATTCCCCATTAAACGCGTACACCACG |
| Sbjct | 5519 | CTAGGACCTGTAGTAACACGTGGCATGGAACATTCCCCATTAAACGCGTACACCACG |
| CDS:non-structural p | 1240 | P R T C S N T W H G T F P I N A Y T T |
| CDS:polyprotein [Hep Query | 2069 | P C T P S P A P N Y S R A L W R V A A |
| | 6547 | CCTGCACGCCCTCCCCGGCGCCAAATTATTCTAGGGCGCTGTGGCGGGTGGCTGCT |
| Sbjct | 5579 | CCTGCACGCCCTCCCCGGCGCCAAATTATTCTAGGGCGCTGTGGCGGGTGGCTGCT |
| CDS:non-structural p | 1260 | P C T P S P A P N Y S R A L W R V A A |
| CDS:polyprotein [Hep Query | 2089 | E Y V E V T R V G D F H Y V T G M T T |
| | 6607 | AGTACGTGGAGGTTACGCGGGTGGGGATTCCACTACGTGACGGGCATGACCACT |
| Sbjct | 5639 | AGTACGTGGAGGTTACGCGGGTGGGGATTCCACTACGTGACGGGCATGACCACT |
| CDS:non-structural p | 1280 | E Y V E V T R V G D F H Y V T G M T T |
| CDS:polyprotein [Hep Query | 2109 | N V K C P C Q V P A P E F F T E V D G |
| | 6667 | ACGTAAAGTGCCGTGTCAGGTTCCGGCCCCGAATTCTCACAGAAGTGGATGGG |
| Sbjct | 5699 | ACGTAAAGTGCCGTGTCAGGTTCCGGCCCCGAATTCTCACAGAAGTGGATGGG |
| CDS:non-structural p | 1300 | N V K C P C Q V P A P E F F T E V D G |
| CDS:polyprotein [Hep Query | 2129 | R L H R Y A P A C K P L L R E E V T F |
| | 6727 | GGTTGCACAGGTACGCTCCAGCGTGCAAACCCCTCCTACGGGAGGAGGTACATT |
| Sbjct | 5759 | GGTTGCACAGGTACGCTCCAGCGTGCAAACCCCTCCTACGGGAGGAGGTACATT |
| CDS:non-structural p | 1320 | R L H R Y A P A C K P L L R E E V T F |
| CDS:polyprotein [Hep Query | 2149 | V G L N Q Y L V G S Q L P C E P E P D |
| | 6787 | TCGGGCTCAATCAATACTGGTTGGGTACAGCTCCCATGCGAGCCCCAACCGGAC |
| Sbjct | 5819 | TCGGGCTCAATCAATACTGGTTGGGTACAGCTCCCATGCGAGCCCCAACCGGAC |
| CDS:non-structural p | 1340 | V G L N Q Y L V G S Q L P C E P E P D |
| CDS:polyprotein [Hep Query | 2169 | A V L T S M L T D P S H I T A E T A K |
| | 6847 | CAGTGCTCACTCCATGCTACCGACCCCTCCACATTACGGCGGAGACGGCTAAG |
| Sbjct | 5879 | CAGTGCTCACTCCATGCTACCGACCCCTCCACATTACGGCGGAGACGGCTAAG |
| CDS:non-structural p | 1360 | A V L T S M L T D P S H I T A E T A K |
| CDS:polyprotein [Hep Query | 2189 | R L A R G S P P S L A S S S A S Q L S |
| | 6907 | GGCTGCCAGGGATCTCCCCCTCCTGGCCAGCTCATCAGCTAGCCAGCTGTCT |
| Sbjct | 5939 | GGCTGCCAGGGATCTCCCCCTCCTGGCCAGCTCATCAGCTAGCCAGCTGTCT |
| CDS:non-structural p | 1380 | R L A R G S P P S L A S S S A S Q L S |
| CDS:polyprotein [Hep Query | 2209 | P S L K A T C T T R H D S P D A D L I |
| | 6967 | CTTCCTTGAAGGCAACATGCACTACCCGTATGACTCCCCGGACGCTGACCTCATC |
| Sbjct | 5999 | CTTCCTTGAAGGCAACATGCACTACCCGTATGACTCCCCGGACGCTGACCTCATC |
| CDS:non-structural p | 1400 | P S L K A T C T T R H D S P D A D L I |
| CDS:polyprotein [Hep Query | 2229 | A N L L W R Q E M G G N I T R V E S E |
| | 7027 | CCAACCTCCTGTGGCGGCAGGAGATGGCGGGAACATCACCGCGTGGAGTCAGAA |
| Sbjct | 6059 | CCAACCTCCTGTGGCGGCAGGAGATGGCGGGAACATCACCGCGTGGAGTCAGAA |

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| CDS:non-structural p | 1420 | A N L L W R Q E M G G N I T R V E S E |
| CDS:polyprotein [Hep Query | 2249 | K V V I L D S F E P L Q A E E D E R E |
| | 7087 | AGGTAGTAATTTGGACTCTTCGAGCCGCTCCAAGCGGAGGAGGATGAGAGGGAA |
| Sbjct | 6119 | AGGTAGTAATTTGGACTCTTCGAGCCGCTCCAAGCGGAGGAGGATGAGAGGGAA |
| CDS:non-structural p | 1440 | K V V I L D S F E P L Q A E E D E R E |
| CDS:polyprotein [Hep Query | 2269 | S V P A E I L R R S R K F P R A M P I |
| | 7147 | CCGTTCCGGCGGAGATCCTCGGGAGGTCCAGGAAATTCCCTCGAGCGATGCCATA |
| Sbjct | 6179 | CCGTTCCGGCGGAGATCCTCGGGAGGTCCAGGAAATTCCCTCGAGCGATGCCATA |
| CDS:non-structural p | 1460 | S V P A E I L R R S R K F P R A M P I |
| CDS:polyprotein [Hep Query | 2289 | A R P D Y N P P L L E S W K D P D Y V |
| | 7207 | CACGCCCGGATTACAACCCCTCCACTGTTAGAGTCCTGGAAGGACCCGACTACGTC |
| Sbjct | 6239 | CACGCCCGGATTACAACCCCTCCACTGTTAGAGTCCTGGAAGGACCCGACTACGTC |
| CDS:non-structural p | 1480 | A R P D Y N P P L L E S W K D P D Y V |
| CDS:polyprotein [Hep Query | 2309 | P V V H G C P L P P A K A P P I P P P |
| | 7267 | CAGTGGTACACGGGTGTCCATTGCCGCCTGCCAAGGCCCTCCGATACCACCTCCA |
| Sbjct | 6299 | CAGTGGTACACGGGTGTCCATTGCCGCCTGCCAAGGCCCTCCGATACCACCTCCA |
| CDS:non-structural p | 1500 | P V V H G C P L P P A K A P P I P P P |
| CDS:polyprotein [Hep Query | 2329 | R K R T V V L S E S T V S S A L A E L |
| | 7327 | GGAAGAGGACGGTTGTCTGTCAAATCTACCGTGTCTTCTGCCCTGGCGGAGCTC |
| Sbjct | 6359 | GGAAGAGGACGGTTGTCTGTCAAATCTACCGTGTCTTCTGCCCTGGCGGAGCTC |
| CDS:non-structural p | 1520 | R K R T V V L S E S T V S S A L A E L |
| CDS:polyprotein [Hep Query | 2349 | T K T F G S S E S S A V D S G T A T A |
| | 7387 | CAAAGACCTCGGCAGCTCCGAATCGTCGGCGCTGACAGCGGCACGGCAACGGCC |
| Sbjct | 6419 | CAAAGACCTCGGCAGCTCCGAATCGTCGGCGCTGACAGCGGCACGGCAACGGCC |
| CDS:non-structural p | 1540 | T K T F G S S E S S A V D S G T A T A |
| CDS:polyprotein [Hep Query | 2369 | P D Q P S D D G D A G S D V E S Y S S |
| | 7447 | CTGACCAGCCCTCCGACGACGGCGACGGGATCCGACGTTGAGTCGTACTCCTCC |
| Sbjct | 6479 | CTGACCAGCCCTCCGACGACGGCGACGGGATCCGACGTTGAGTCGTACTCCTCC |
| CDS:non-structural p | 1560 | P D Q P S D D G D A G S D V E S Y S S |
| CDS:polyprotein [Hep Query | 2389 | P P L E G E P G D P D L S D G S W S T |
| | 7507 | CCCCCTTGAGGGGGAGCCGGGGATCCGATCTCAGCGACGGGTCTGGTCTACC |
| Sbjct | 6539 | CCCCCTTGAGGGGGAGCCGGGGATCCGATCTCAGCGACGGGTCTGGTCTACC |
| CDS:non-structural p | 1580 | P P L E G E P G D P D L S D G S W S T |
| CDS:polyprotein [Hep Query | 2409 | S E E A S E D V V C C S M S Y T W T G |
| | 7567 | GCGAGGAGGCTAGTGAGGACGTCGTCTGCTCGATGTCCCTACACATGGACAGGC |
| Sbjct | 6599 | GCGAGGAGGCTAGTGAGGACGTCGTCTGCTCGATGTCCCTACACATGGACAGGC |
| CDS:non-structural p | 1600 | S E E A S E D V V C C S M S Y T W T G |
| CDS:polyprotein [Hep Query | 2429 | L I T P C A A E E T K L P I N A L S N |
| | 7627 | TGATCACGCCATGCGCTGCGGAGGAAACCAAGCTGCCATCAATGCACTGAGCAAC |
| Sbjct | 6659 | TGATCACGCCATGCGCTGCGGAGGAAACCAAGCTGCCATCAATGCACTGAGCAAC |

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| CDS:non-structural p | 1620 | L I T P C A A E E T K L P I N A L S N |
| CDS:polyprotein [Hep Query | 2449 | L L R H H N L V Y A T T S R S A S L R |
| | 7687 | TGCTCCGTCACCACAACCTGGTCTATGCTACAACATCTCGCAGCGCAAGCCTGCGG |
| Sbjct | 6719 | TGCTCCGTCACCACAACCTGGTCTATGCTACAACATCTCGCAGCGCAAGCCTGCGG |
| CDS:non-structural p | 1640 | L L R H H N L V Y A T T S R S A S L R |
| CDS:polyprotein [Hep Query | 2469 | K K V T F D R L Q V L D D H Y R D V L |
| | 7747 | AGAAGGTCACCTTGACAGACTGCAGGTCTGGACGACCACTACCGGGACGTGCTC |
| Sbjct | 6779 | AGAAGGTCACCTTGACAGACTGCAGGTCTGGACGACCACTACCGGGACGTGCTC |
| CDS:non-structural p | 1660 | K K V T F D R L Q V L D D H Y R D V L |
| CDS:polyprotein [Hep Query | 2489 | E M K A K A S T V K A K L L S V E E A |
| | 7807 | AGATGAAGGCGAAGGCGTCCACAGTTAAGGCTAAACTCTATCCGTGGAGGAAGCC |
| Sbjct | 6839 | AGATGAAGGCGAAGGCGTCCACAGTTAAGGCTAAACTCTATCCGTGGAGGAAGCC |
| CDS:non-structural p | 1680 | E M K A K A S T V K A K L L S V E E A |
| CDS:polyprotein [Hep Query | 2509 | K L T P P H S A R S K F G Y G A K D V |
| | 7867 | AGCTGACGCCACATTGGCCAGATCTAAATTGGCTATGGGGCAAAGGACGT |
| Sbjct | 6899 | AGCTGACGCCACATTGGCCAGATCTAAATTGGCTATGGGGCAAAGGACGT |
| CDS:non-structural p | 1700 | K L T P P H S A R S K F G Y G A K D V |
| CDS:polyprotein [Hep Query | 2529 | N L S S K A V N H I R S V W K D L L E |
| | 7927 | ACCTATCCAGCAAGGCCGTTAACCATCCGCTCCGTGTGGAAAGGACTTGCTGGAA |
| Sbjct | 6959 | ACCTATCCAGCAAGGCCGTTAACCATCCGCTCCGTGTGGAAAGGACTTGCTGGAA |
| CDS:non-structural p | 1720 | N L S S K A V N H I R S V W K D L L E |
| CDS:polyprotein [Hep Query | 2549 | T E T P I D T T I M A K N E V F C V Q |
| | 7987 | CTGAGACACCAATTGACACCACCATGGCAAAAAATGAGGTTCTGCGTCCAA |
| Sbjct | 7019 | CTGAGACACCAATTGACACCACCATGGCAAAAAATGAGGTTCTGCGTCCAA |
| CDS:non-structural p | 1740 | T E T P I D T T I M A K N E V F C V Q |
| CDS:polyprotein [Hep Query | 2569 | E K G G R K P A R L I V F P D L G V R |
| | 8047 | AGAAGGGGGCCGCAAGCCAGCTGCCATTACGTATTCCCAGATTGGGGTTCGT |
| Sbjct | 7079 | AGAAGGGGGCCGCAAGCCAGCTGCCATTACGTATTCCCAGATTGGGGTTCGT |
| CDS:non-structural p | 1760 | E K G G R K P A R L I V F P D L G V R |
| CDS:polyprotein [Hep Query | 2589 | C E K M A L Y D V V S T L P Q A V M G |
| | 8107 | GCGAGAAAATGGCCCTTACGATGTGGCTCCACCCCTCCCTCAGGCCGTATGGG |
| Sbjct | 7139 | GCGAGAAAATGGCCCTTACGATGTGGCTCCACCCCTCCCTCAGGCCGTATGGG |
| CDS:non-structural p | 1780 | C E K M A L Y D V V S T L P Q A V M G |
| CDS:polyprotein [Hep Query | 2609 | S Y G F Q Y S P G Q R V E F L V N A W |
| | 8167 | CATACGGATTCCAATACTCTCCTGGACAGCGGGTCGAGTTCTGGTGAATGCC |
| Sbjct | 7199 | CATACGGATTCCAATACTCTCCTGGACAGCGGGTCGAGTTCTGGTGAATGCC |
| CDS:non-structural p | 1800 | S Y G F Q Y S P G Q R V E F L V N A W |
| CDS:polyprotein [Hep Query | 2629 | A K K C P M G F A Y D T R C F D S T V |
| | 8227 | CGAAGAAAATGCCCTATGGGCTTCGCATATGACACCCGCTTTGACTCAACGG |
| Sbjct | 7259 | CGAAGAAAATGCCCTATGGGCTTCGCATATGACACCCGCTTTGACTCAACGG |

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| CDS:non-structural p | 1820 | A K K C P M G F A Y D T R C F D S T V |
| CDS:polyprotein [Hep Query | 2649 8287 | E N D I R V E E S I Y Q C C C D L A P E AGAATGACATCCGTGTTGAGGAGTCATCTACCAATGTTGTGACTTGGCCCCGAA |
| Sbjct | 7319 | AGAATGACATCCGTGTTGAGGAGTCATCTACCAATGTTGTGACTTGGCCCCGAA |
| CDS:non-structural p | 1840 | E N D I R V E E S I Y Q C C C D L A P E |
| CDS:polyprotein [Hep Query | 2669 8347 | R Q A I R S L T E R L Y I G G P L T N GACAGGCCATAAGGTCGCTCACAGAGCGGCTTACATCGGGGGCCCCCTGACTAAT |
| Sbjct | 7379 | GACAGGCCATAAGGTCGCTCACAGAGCGGCTTACATCGGGGGCCCCCTGACTAAT |
| CDS:non-structural p | 1860 | R Q A I R S L T E R L Y I G G P L T N |
| CDS:polyprotein [Hep Query | 2689 8407 | K G Q N C G Y R R C R A S G V L T T S AAGGGCAGAACTGCGGCTATGCCGGTGCCGCGAGCGGTACTGACGACCAGC |
| Sbjct | 7439 | AAGGGCAGAACTGCGGCTATGCCGGTGCCGCGAGCGGTACTGACGACCAGC |
| CDS:non-structural p | 1880 | K G Q N C G Y R R C R A S G V L T T S |
| CDS:polyprotein [Hep Query | 2709 8467 | G N T L T C Y L K A A A A C R A A K L GTAATACCCCTCACATGTTACTTGAAGGCCGCTGCCGCTGCGAGCTGCGAAGCTC |
| Sbjct | 7499 | GTAATACCCCTCACATGTTACTTGAAGGCCGCTGCCGCTGCGAGCTGCGAAGCTC |
| CDS:non-structural p | 1900 | G N T L T C Y L K A A A A C R A A K L |
| CDS:polyprotein [Hep Query | 2729 8527 | D C T M L V C G D D L V V I C E S A G ACTGCACGATGCTCGTATGCCGGAGACGACCTTGTGTTATCTGTGAAAGCGCGGG |
| Sbjct | 7559 | ACTGCACGATGCTCGTATGCCGGAGACGACCTTGTGTTATCTGTGAAAGCGCGGG |
| CDS:non-structural p | 1920 | D C T M L V C G D D L V V I C E S A G |
| CDS:polyprotein [Hep Query | 2749 8587 | Q E D E A S L R A F T E A M T R Y S A AAGAGGACGAGGGAGCCTACGGGCTCACGGAGGCTATGACTAGATACTCTGCC |
| Sbjct | 7619 | AAGAGGACGAGGGAGCCTACGGGCTCACGGAGGCTATGACTAGATACTCTGCC |
| CDS:non-structural p | 1940 | Q E D E A S L R A F T E A M T R Y S A |
| CDS:polyprotein [Hep Query | 2769 8647 | P G D P P K P E Y D L E L I T S C S S CTGGGGACCCGCCAAACCAAGAATACGACTTGGAGTTGATAACATCATGCTCCTCC |
| Sbjct | 7679 | CTGGGGACCCGCCAAACCAAGAATACGACTTGGAGTTGATAACATCATGCTCCTCC |
| CDS:non-structural p | 1960 | P G D P P K P E Y D L E L I T S C S S |
| CDS:polyprotein [Hep Query | 2789 8707 | V S V A H D A S G K R V Y Y L T R D P TGTCAGTCGCGCACGATGCATCTGGAAAAGGGTGTACTATCTCACCGTGACCCC |
| Sbjct | 7739 | TGTCAGTCGCGCACGATGCATCTGGAAAAGGGTGTACTATCTCACCGTGACCCC |
| CDS:non-structural p | 1980 | V S V A H D A S G K R V Y Y L T R D P |
| CDS:polyprotein [Hep Query | 2809 8767 | T P L A R A A W E T A R H T P V N S W CCCCCCTTGCAGCGGGCTGCGTGGAGACAGCTAGACACACTCCAGTCAATTCTGG |
| Sbjct | 7799 | CCCCCCTTGCAGCGGGCTGCGTGGAGACAGCTAGACACACTCCAGTCAATTCTGG |
| CDS:non-structural p | 2000 | T P L A R A A W E T A R H T P V N S W |
| CDS:polyprotein [Hep Query | 2829 8827 | G N I I M Y A P T L W A R M I L M T H GCAACATCATCATGTATGCCACCTTGTGGCAAGGATGATCCTGATGACTCAT |
| Sbjct | 7859 | GCAACATCATGTATGCCACCTTGTGGCAAGGATGATCCTGATGACTCAT |

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| CDS:non-structural p | 2020 | G N I I M Y A P T L W A R M I L M T H |
| CDS:polyprotein [Hep Query | 2849 8887 | F S I L L A Q E Q L E K A L D C Q I Y TCTCCATCCTCTAGCTCAGGAACAACTTGAAAAAGCCCTAGATTGTCAGATCTAC |
| Sbjct | 7919 | TCTCCATCCTCTAGCTCAGGAACAACTTGAAAAAGCCCTAGATTGTCAGATCTAC |
| CDS:non-structural p | 2040 | F S I L L A Q E Q L E K A L D C Q I Y |
| CDS:polyprotein [Hep Query | 2869 8947 | A C Y S I E P L D L P Q I I Q R L H G CCTGTTACTCCATTGAGCCACTTGACCTACCTCAGATCATTCAACGACTCCATGGC |
| Sbjct | 7979 | CCTGTTACTCCATTGAGCCACTTGACCTACCTCAGATCATTCAACGACTCCATGGC |
| CDS:non-structural p | 2060 | A C Y S I E P L D L P Q I I Q R L H G |
| CDS:polyprotein [Hep Query | 2889 9007 | S A F S L H S Y S P G E I N R V A S C GCGCATTTCACTCCATAGTTACTCTCCAGGTGAGATCAATAGGGTGGCTTCATGC |
| Sbjct | 8039 | GCGCATTTCACTCCATAGTTACTCTCCAGGTGAGATCAATAGGGTGGCTTCATGC |
| CDS:non-structural p | 2080 | S A F S L H S Y S P G E I N R V A S C |
| CDS:polyprotein [Hep Query | 2909 9067 | R K L G V P P L R V W R H R A R S V R GGAAACTTGGGGTACCGCCCTTGCAGTGAGACATCGGGCAGAAGTGTCCGC |
| Sbjct | 8099 | GGAAACTTGGGGTACCGCCCTTGCAGTGAGACATCGGGCAGAAGTGTCCGC |
| CDS:non-structural p | 2100 | R K L G V P P L R V W R H R A R S V R |
| CDS:polyprotein [Hep Query | 2929 9127 | R L L S Q G G R A A T C G K Y L F N W GGCTACTGTCCCAGGGGGAGGGCTGCCACTTGTGGCAAGTACCTCTCACTGG |
| Sbjct | 8159 | GGCTACTGTCCCAGGGGGAGGGCTGCCACTTGTGGCAAGTACCTCTCACTGG |
| CDS:non-structural p | 2120 | R L L S Q G G R A A T C G K Y L F N W |
| CDS:polyprotein [Hep Query | 2949 9187 | V R T K L K L T P I P A A S Q L D L S TAAGGACCAAGCTCAAACACTCCAATCCCGCTCGTCCAGTTGGATTATCC |
| Sbjct | 8219 | TAAGGACCAAGCTCAAACACTCCAATCCCGCTCGTCCAGTTGGATTATCC |
| CDS:non-structural p | 2140 | V R T K L K L T P I P A A S Q L D L S |
| CDS:polyprotein [Hep Query | 2969 9247 | W F V A G Y S G G D I Y H S L S R A R GGTCGTTGCTGGTTACAGCGGGGAGACATATATCACAGCCTGTCTCGTCCCCGA |
| Sbjct | 8279 | GGTCGTTGCTGGTTACAGCGGGGAGACATATATCACAGCCTGTCTCGTCCCCGA |
| CDS:non-structural p | 2160 | W F V A G Y S G G D I Y H S L S R A R |
| CDS:polyprotein [Hep Query | 2989 9307 | R W F M W C L L L S V G V G I Y L L GCTGGTTCATGTGGTGCCTACTCCTACTTCTGTAGGGGTAGGCATCTATCTACTC |
| Sbjct | 8339 | GCTGGTTCATGTGGTGCCTACTCCTACTTCTGTAGGGGTAGGCATCTATCTACTC |
| CDS:non-structural p | 2180 | R W F M W C L L L S V G V G I Y L L |
| CDS:polyprotein [Hep Query | 3009 9367 | N R ACCGATGAACGGGGAGCTAACACTCCAGGCCAATAGGCCATCCTG 9412 |
| Sbjct | 8399 | ACCGATGAACGGGGAGCTAACACTCCAGGCCAATAGGCCATCCTG 8444 |
| CDS:non-structural p | 2200 | N R |

Score = 696 bits (362), Expect = 0.0
 Identities = 376/376 (100%), Gaps = 0/376 (0%)
 Strand=Plus/Plus

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|----------------------|-----|---|-------------|
| Query | 2 | CCAGCCCCGATTGGGGCGACACTCCACCATAGATCACTCCCTGTGAGGAAC | TAC |
| | | | |
| Sbjct | 2 | CCAGCCCCGATTGGGGCGACACTCCACCATAGATCACTCCCTGTGAGGAAC | TAC |
| | | | |
| Query | 62 | CTTCACGCAGAAAGCGTCTAGCCATGGCGTTAGTATGAGTGTGTCAGCCTC | AGG |
| | | | |
| Sbjct | 62 | CTTCACGCAGAAAGCGTCTAGCCATGGCGTTAGTATGAGTGTGTCAGCCTC | AGG |
| | | | |
| Query | 122 | CCCCCTCCCGGGAGAGCCATAGTGGTCTGCGAACCGGTGAGTACACCGGA | ATTGCC |
| | | | |
| Sbjct | 122 | CCCCCTCCCGGGAGAGCCATAGTGGTCTGCGAACCGGTGAGTACACCGGA | ATTGCC |
| | | | |
| Query | 182 | ACGACCGGGTCCTTCTTGGATCAACCCGCTCAATGCCTGGAGATTGGCGT | GCCCC |
| | | | |
| Sbjct | 182 | ACGACCGGGTCCTTCTTGGATCAACCCGCTCAATGCCTGGAGATTGGCGT | GCCCC |
| | | | |
| Query | 242 | CGAGACTGCTAGCCGAGTAGTGGTGGTGGCGAACAGCCTGGTACTGCCTG | AATA |
| | | | |
| Sbjct | 242 | CGAGACTGCTAGCCGAGTAGTGGTGGTGGCGAACAGCCTGGTACTGCCTG | AATA |
| | | | |
| CDS:polyprotein [Hep | 1 | | M S T N P K |
| Query | 302 | TGCTTGCAGTGCCCCGGGAGGTCTCGTAGACCGTGCACCATGAGCACGA | ATTCTAA |
| | | | |
| Sbjct | 302 | TGCTTGCAGTGCCCCGGGAGGTCTCGTAGACCGTGCACCATGAGCACGA | ATTCTAA |
| CDS:core-neo fusion | 1 | | M S T N P K |
| CDS:polyprotein [Hep | 8 | Q R K T K | |
| Query | 362 | TCAAAGAAAAACCAA | 377 |
| | | | |
| Sbjct | 362 | TCAAAGAAAAACCAA | 377 |
| CDS:core-neo fusion | 8 | Q R K T K | |

Score = 189 bits (98), Expect = 2e-43
 Identities = 98/98 (100%), Gaps = 0/98 (0%)
 Strand=Plus/Plus

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|-------|------|---|------|
| Query | 9508 | GGTGGCTCCATCTAGCCCTAGTCACGGCTAGCTGTGAAAGGTCCGTGAGCCGCTTGACT | 9567 |
| | | | |
| Sbjct | 8540 | GGTGGCTCCATCTAGCCCTAGTCACGGCTAGCTGTGAAAGGTCCGTGAGCCGCTTGACT | 8599 |
| | | | |
| Query | 9568 | GCAGAGAGTGCTGATACTGGCCTCTCTGCAGATCAAGT | 9605 |
| | | | |
| Sbjct | 8600 | GCAGAGAGTGCTGATACTGGCCTCTCTGCAGATCAAGT | 8637 |

CPU time: 0.15 user secs. 0.04 sys. secs 0.19 total secs.

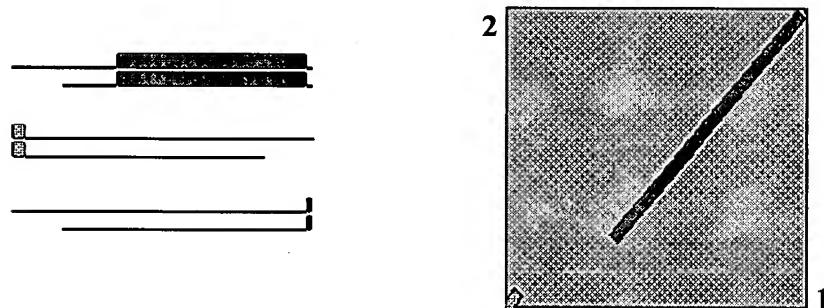
BLAST 2 SEQUENCES RESULTS VERSION BLASTN 2.2.17 [Aug-26-2007]

Match: 1 Mismatch: -2 gap open: 5 gap extension: 2

x_dropoff: 0 expect: 10.0000 wordsize: 11 Filter View option StandardMasking character option X for protein, n for nucleotide Masking color option Black Show CDS translation Align

Sequence 1: gi|5420376|Hepatitis C virus type 1b complete genome, isolate Con1
 Length = 9604 (1 .. 9605)

Sequence 2: gi|5441840|Hepatitis C virus replicon I389/NS3-3'UTR
 Length = 8000 (1 .. 8001)



NOTE: Bitscore and expect value are calculated based on the size of the nr database.

NOTE: If protein translation is reversed, please repeat the search with reverse strand of the query sequence.



Score = 1.142e+04 bits (5937), Expect = 0.0
 Identities = 5993/5993 (100%), Gaps = 0/5993 (0%)
 Strand=Plus/Plus

| | | |
|----------------------|------|--|
| CDS:polyprotein [Hep | 1027 | A P I T A Y S Q Q T R G L L G C I I T |
| Query | 3420 | GCGCCTATTACGGCCTACTCCAACAGACGCGAGGCCTACTTGGCTGCATCATCAC |
| | | |
| Sbjct | 1816 | GCGCCTATTACGGCCTACTCCAACAGACGCGAGGCCTACTTGGCTGCATCATCAC |
| CDS:non-structural p | 2 | A P I T A Y S Q Q T R G L L G C I I T |
| CDS:polyprotein [Hep | 1047 | L T G R D R N Q V E G E V Q V V S T A |
| Query | 3480 | CTCACAGGCCGGGACAGGAACCAGGTCGAGGGGGAGGTCCAAGTGGTCTCCACCGC |
| | | |
| Sbjct | 1876 | CTCACAGGCCGGGACAGGAACCAGGTCGAGGGGGAGGTCCAAGTGGTCTCCACCGC |

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| CDS:non-structural p | 22 | L T G R D R N Q V E G E V Q V V S T A |
| CDS:polyprotein [Hep Query | 1067 | Q S F L A T C V N G V C W T V Y H G A |
| | 3540 | CAATCTTCCTGGCACCCTCGTCAATGGCGTGTGTTGACTGTCTATCATGGTGC |
| Sbjct | 1936 | CAATCTTCCTGGCACCCTCGTCAATGGCGTGTGTTGACTGTCTATCATGGTGC |
| CDS:non-structural p | 42 | Q S F L A T C V N G V C W T V Y H G A |
| CDS:polyprotein [Hep Query | 1087 | S K T L A G P K G P I T Q M Y T N V D |
| | 3600 | TCAAAGACCCTTGCCTGGCCAAAGGGCCAATCACCAAATGTACACCAATGTGGA |
| Sbjct | 1996 | TCAAAGACCCTTGCCTGGCCAAAGGGCCAATCACCAAATGTACACCAATGTGGA |
| CDS:non-structural p | 62 | S K T L A G P K G P I T Q M Y T N V D |
| CDS:polyprotein [Hep Query | 1107 | D L V G W Q A P P G A R S L T P C T C |
| | 3660 | GACCTCGTCGGCTGGCAAGCGCCCCCCCAGGGCGTCTTGACACCATGCACCTG |
| Sbjct | 2056 | GACCTCGTCGGCTGGCAAGCGCCCCCCCAGGGCGTCTTGACACCATGCACCTG |
| CDS:non-structural p | 82 | D L V G W Q A P P G A R S L T P C T C |
| CDS:polyprotein [Hep Query | 1127 | S S D L Y L V T R H A D V I P V R R R |
| | 3720 | AGCTCGGACCTTACTGGTCACGAGGCATGCCATGTCAATTCCGGTGCGCCGGCG |
| Sbjct | 2116 | AGCTCGGACCTTACTGGTCACGAGGCATGCCATGTCAATTCCGGTGCGCCGGCG |
| CDS:non-structural p | 102 | S S D L Y L V T R H A D V I P V R R R |
| CDS:polyprotein [Hep Query | 1147 | D S R G S L L S P R P V S Y L K G S S |
| | 3780 | GACAGCAGGGGGAGCCTACTCTCCCCCAGGCCGTCTCTACTTGAAGGGCTCTCG |
| Sbjct | 2176 | GACAGCAGGGGGAGCCTACTCTCCCCCAGGCCGTCTCTACTTGAAGGGCTCTTC |
| CDS:non-structural p | 122 | D S R G S L L S P R P V S Y L K G S S |
| CDS:polyprotein [Hep Query | 1167 | G P L L C P S G H A V G I F R A A V C |
| | 3840 | GGTCCACTGCTCTGCCCTCGGGCACGCTGTGGGCATCTTCGGGCTGCCGTGTG |
| Sbjct | 2236 | GGTCCACTGCTCTGCCCTCGGGCACGCTGTGGGCATCTTCGGGCTGCCGTGTG |
| CDS:non-structural p | 142 | G P L L C P S G H A V G I F R A A V C |
| CDS:polyprotein [Hep Query | 1187 | R G V A K A V D F V P V E S M E T T M |
| | 3900 | CGAGGGGTTGCGAAGGCAGGTGGACTTGTACCCGTCGAGTCTATGGAAACCACTAT |
| Sbjct | 2296 | CGAGGGGTTGCGAAGGCAGGTGGACTTGTACCCGTCGAGTCTATGGAAACCACTAT |
| CDS:non-structural p | 162 | R G V A K A V D F V P V E S M E T T M |
| CDS:polyprotein [Hep Query | 1207 | S P V F T D N S S P P A V P Q T F Q V |
| | 3960 | TCCCCGGTCTTCACGGACAACCTCGTCCCCCTCCGGCGTACCGCAGACATTCCAGGT |
| Sbjct | 2356 | TCCCCGGTCTTCACGGACAACCTCGTCCCCCTCCGGCGTACCGCAGACATTCCAGGT |
| CDS:non-structural p | 182 | S P V F T D N S S P P A V P Q T F Q V |
| CDS:polyprotein [Hep Query | 1227 | H L H A P T G S G K S T K V P A A Y A |
| | 4020 | CATCTACACGCCCTACTGGTAGCGGCAAGAGCACTAAGGTGCCGGCTCGTATGC |
| Sbjct | 2416 | CATCTACACGCCCTACTGGTAGCGGCAAGAGCACTAAGGTGCCGGCTCGTATGC |
| CDS:non-structural p | 202 | H L H A P T G S G K S T K V P A A Y A |
| CDS:polyprotein [Hep Query | 1247 | Q G Y K V L V L N P S V A A T L G F G |
| | 4080 | CAAGGGTATAAGGTGCTTGTCCCTGAACCGTCCGTGCCGCCACCCCTAGGTTCGG |
| Sbjct | 2476 | CAAGGGTATAAGGTGCTTGTCCCTGAACCGTCCGTGCCGCCACCCCTAGGTTCGG |

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| CDS:non-structural p | 222 | Q G Y K V L V L N P S V A A T L G F G |
| CDS:polyprotein [Hep Query | 1267 | Y M S K A H G I D P N I R T G V R T I |
| | 4140 | TATATGTCTAAGGCACATGGTATCGACCCTAACATCAGAACCGGGTAAGGACCAT |
| Sbjct | 2536 | TATATGTCTAAGGCACATGGTATCGACCCTAACATCAGAACCGGGTAAGGACCAT |
| CDS:non-structural p | 242 | Y M S K A H G I D P N I R T G V R T I |
| CDS:polyprotein [Hep Query | 1287 | T G A P I T Y S T Y G K F L A D G G C |
| | 4200 | ACGGGTGCCCTCATCACGTACTCCACCTATGGCAAGTTCTTGCCGACGGTGGTG |
| Sbjct | 2596 | ACGGGTGCCCTCATCACGTACTCCACCTATGGCAAGTTCTTGCCGACGGTGGTG |
| CDS:non-structural p | 262 | T G A P I T Y S T Y G K F L A D G G C |
| CDS:polyprotein [Hep Query | 1307 | G G A Y D I I I C D E C H S T D S T T |
| | 4260 | GGGGCGCCTATGACATCATAATATGTGATGAGTGCCACTCAACTGACTCGACCAC |
| Sbjct | 2656 | GGGGCGCCTATGACATCATAATATGTGATGAGTGCCACTCAACTGACTCGACCAC |
| CDS:non-structural p | 282 | G G A Y D I I I C D E C H S T D S T T |
| CDS:polyprotein [Hep Query | 1327 | L G I G T V L D Q A E T A G A R L V V |
| | 4320 | CTGGGCATCGGCACAGTCCTGGACCAAGCGGAGACGGCTGGAGCGCGACTCGTCGT |
| Sbjct | 2716 | CTGGGCATCGGCACAGTCCTGGACCAAGCGGAGACGGCTGGAGCGCGACTCGTCGT |
| CDS:non-structural p | 302 | L G I G T V L D Q A E T A G A R L V V |
| CDS:polyprotein [Hep Query | 1347 | A T A T P P G S V T V P H P N I E E V |
| | 4380 | GCCACCGCTACGCCTCCGGATCGTCACCGTGCCACATCCAAACATCGAGGAGGT |
| Sbjct | 2776 | GCCACCGCTACGCCTCCGGATCGTCACCGTGCCACATCCAAACATCGAGGAGGT |
| CDS:non-structural p | 322 | A T A T P P G S V T V P H P N I E E V |
| CDS:polyprotein [Hep Query | 1367 | L S S T G E I P F Y G K A I P I E T I |
| | 4440 | CTGTCCAGCACTGGAGAAATCCCCTTTATGGCAAAGCCATCCCCATCGAGACCACAT |
| Sbjct | 2836 | CTGTCCAGCACTGGAGAAATCCCCTTTATGGCAAAGCCATCCCCATCGAGACCACAT |
| CDS:non-structural p | 342 | L S S T G E I P F Y G K A I P I E T I |
| CDS:polyprotein [Hep Query | 1387 | G G R H L I F C H S K K K C D E L A A |
| | 4500 | GGGGGGAGGCACCTCATTTCTGCCATTCCAAGAAGAAATGTGATGAGCTCGCCGC |
| Sbjct | 2896 | GGGGGGAGGCACCTCATTTCTGCCATTCCAAGAAGAAATGTGATGAGCTCGCCGC |
| CDS:non-structural p | 362 | G G R H L I F C H S K K K C D E L A A |
| CDS:polyprotein [Hep Query | 1407 | L S G L G L N A V A Y Y R G L D V S V |
| | 4560 | CTGTCCGGCCTCGGACTCAATGCTGTAGCATATTACCGGGCCTTGATGTATCCGT |
| Sbjct | 2956 | CTGTCCGGCCTCGGACTCAATGCTGTAGCATATTACCGGGCCTTGATGTATCCGT |
| CDS:non-structural p | 382 | L S G L G L N A V A Y Y R G L D V S V |
| CDS:polyprotein [Hep Query | 1427 | P T S G D V I V V A T D A L M T G F T |
| | 4620 | CCAACTAGCGGAGACGTATTGTCGTAGCAACGGACGCTCTAACATGACGGCTTAC |
| Sbjct | 3016 | CCAACTAGCGGAGACGTATTGTCGTAGCAACGGACGCTCTAACATGACGGCTTAC |
| CDS:non-structural p | 402 | P T S G D V I V V A T D A L M T G F T |
| CDS:polyprotein [Hep Query | 1447 | D F D S V I D C N T C V T Q T V D F S |
| | 4680 | GATTCGACTCAGTGTACTGCAATACATGTGTACCCAGACAGTCGACTTCAG |
| Sbjct | 3076 | GATTCGACTCAGTGTACTGCAATACATGTGTACCCAGACAGTCGACTTCAG |

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| CDS:non-structural p | 422 | D F D S V I D C N T C V T Q T V D F S |
| CDS:polyprotein [Hep Query | 1467 | D P T F T I E T T T V P Q D A V S R S |
| | 4740 | GACCCGACCTTCACCATTGAGACGACGACCCTGCCACAAGACGCGGTGTCACGGCTC |
| Sbjct | 3136 | GACCCGACCTTCACCATTGAGACGACGACCCTGCCACAAGACGCGGTGTCACGGCTC |
| CDS:non-structural p | 442 | D P T F T I E T T T V P Q D A V S R S |
| CDS:polyprotein [Hep Query | 1487 | R R G R T G R G R M G I Y R F V T P G |
| | 4800 | CGGGCAGGCAGGACTGGTAGGGGCAGGATGGCATTACAGGTTGTGACTCCAGG |
| Sbjct | 3196 | CGGGCAGGCAGGACTGGTAGGGGCAGGATGGCATTACAGGTTGTGACTCCAGG |
| CDS:non-structural p | 462 | R R G R T G R G R M G I Y R F V T P G |
| CDS:polyprotein [Hep Query | 1507 | R P S G M F D S S V L C E C Y D A G C |
| | 4860 | CGGCCCTCGGGCATGTTGATTCCCTCGGTTCTGTGCGAGTGTATGACGCGGGCTG |
| Sbjct | 3256 | CGGCCCTCGGGCATGTTGATTCCCTCGGTTCTGTGCGAGTGTATGACGCGGGCTG |
| CDS:non-structural p | 482 | R P S G M F D S S V L C E C Y D A G C |
| CDS:polyprotein [Hep Query | 1527 | W Y E L T P A E T S V R L R A Y L N T |
| | 4920 | TGGTACGAGCTCACGCCCGCAGACCTCAGTTAGGTTGCGGGCTTACCTAAACAC |
| Sbjct | 3316 | TGGTACGAGCTCACGCCCGCAGACCTCAGTTAGGTTGCGGGCTTACCTAAACAC |
| CDS:non-structural p | 502 | W Y E L T P A E T S V R L R A Y L N T |
| CDS:polyprotein [Hep Query | 1547 | G L P V C Q D H L E F W E S V F T G L |
| | 4980 | GGGTTGCCCGTCTGCCAGGACCCTGGAGTTCTGGGAGAGCGTCTTACAGGCCT |
| Sbjct | 3376 | GGGTTGCCCGTCTGCCAGGACCCTGGAGTTCTGGGAGAGCGTCTTACAGGCCT |
| CDS:non-structural p | 522 | G L P V C Q D H L E F W E S V F T G L |
| CDS:polyprotein [Hep Query | 1567 | H I D A H F L S Q T K Q A G D N F P Y |
| | 5040 | CACATAGACGCCATTCTGTCCCAGACTAACGAGGAGAACAACTCCCTA |
| Sbjct | 3436 | CACATAGACGCCATTCTGTCCCAGACTAACGAGGAGAACAACTCCCTA |
| CDS:non-structural p | 542 | H I D A H F L S Q T K Q A G D N F P Y |
| CDS:polyprotein [Hep Query | 1587 | V A Y Q A T V C A R A Q A P P P S W D |
| | 5100 | GTCAGCATACCAGGCTACGGTGTGCCAGGGCTCAGGCTCCACCTCCATCGGGGA |
| Sbjct | 3496 | GTCAGCATACCAGGCTACGGTGTGCCAGGGCTCAGGCTCCACCTCCATCGGGGA |
| CDS:non-structural p | 562 | V A Y Q A T V C A R A Q A P P P S W D |
| CDS:polyprotein [Hep Query | 1607 | M W K C L I R L K P T L H G P T P L L |
| | 5160 | ATGTGGAAGTGTCTCATACGGCTAAAGCCTACGCTGCACGGGCCAACGCCCCTGCT |
| Sbjct | 3556 | ATGTGGAAGTGTCTCATACGGCTAAAGCCTACGCTGCACGGGCCAACGCCCCTGCT |
| CDS:non-structural p | 582 | M W K C L I R L K P T L H G P T P L L |
| CDS:polyprotein [Hep Query | 1627 | R L G A V Q N E V T T T H P I T K Y I |
| | 5220 | AGGCTGGGAGCCGTTCAAAACGAGGTTACTACCACACACCCATAACCAAATACAT |
| Sbjct | 3616 | AGGCTGGGAGCCGTTCAAAACGAGGTTACTACCACACACCCATAACCAAATACAT |
| CDS:non-structural p | 602 | R L G A V Q N E V T T T H P I T K Y I |
| CDS:polyprotein [Hep Query | 1647 | A C M S A D L E V V T S T W V L V G G |
| | 5280 | GCATGCATGTCGGCTGACCTGGAGGTCGTACGAGCACCTGGGTGCTGGTAGGC |
| Sbjct | 3676 | GCATGCATGTCGGCTGACCTGGAGGTCGTACGAGCACCTGGGTGCTGGTAGGC |

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| CDS:non-structural p | 622 | A C M S A D L E V V T S T W V L V G G |
| CDS:polyprotein [Hep Query | 1667 | L A A L A A Y C L T T G S V V I V G R |
| | 5340 | CTAGCAGCTCTGGCCGCGTATTGCCTGACAACAGGCAGCGTGGTCATTGGCAG |
| Sbjct | 3736 | CTAGCAGCTCTGGCCGCGTATTGCCTGACAACAGGCAGCGTGGTCATTGGCAG |
| CDS:non-structural p | 642 | L A A L A A Y C L T T G S V V I V G R |
| CDS:polyprotein [Hep Query | 1687 | I L S G K P A I I P D R E V L Y R E F |
| | 5400 | ATCTTGTCCGGAAAGCCGCCATCATTCCCACAGGGAAAGTCCTTACCGGGAGTT |
| Sbjct | 3796 | ATCTTGTCCGGAAAGCCGCCATCATTCCCACAGGGAAAGTCCTTACCGGGAGTT |
| CDS:non-structural p | 662 | I L S G K P A I I P D R E V L Y R E F |
| CDS:polyprotein [Hep Query | 1707 | E M E E C A S H L P Y I E Q G M Q L A |
| | 5460 | GAGATGGAAGAGTGCACCTCACACCTCCCTAACATCGAACAGGGAAATGCAGCTCGC |
| Sbjct | 3856 | GAGATGGAAGAGTGCACCTCACACCTCCCTAACATCGAACAGGGAAATGCAGCTCGC |
| CDS:non-structural p | 682 | E M E E C A S H L P Y I E Q G M Q L A |
| CDS:polyprotein [Hep Query | 1727 | Q F K Q K A I G L L Q T A T K Q A E A |
| | 5520 | CAATTCAAACAGAAGGCAATCGGGTTGCTGCAAACAGCCACCAAGCAAGCGGAGGC |
| Sbjct | 3916 | CAATTCAAACAGAAGGCAATCGGGTTGCTGCAAACAGCCACCAAGCAAGCGGAGGC |
| CDS:non-structural p | 702 | Q F K Q K A I G L L Q T A T K Q A E A |
| CDS:polyprotein [Hep Query | 1747 | A P V V E S K W R T L E A F W A K H M |
| | 5580 | GCTCCCGTGGTGAATCCAAGTGGCGGACCCCTCGAACGCCTCTGGCGAACATAT |
| Sbjct | 3976 | GCTCCCGTGGTGAATCCAAGTGGCGGACCCCTCGAACGCCTCTGGCGAACATAT |
| CDS:non-structural p | 722 | A P V V E S K W R T L E A F W A K H M |
| CDS:polyprotein [Hep Query | 1767 | N F I S G I Q Y L A G L S T L P G N P |
| | 5640 | AATTTCATCAGCGGGATACAATATTAGCAGGCTTGTCCACTCTGCCTGGCAACCC |
| Sbjct | 4036 | AATTTCATCAGCGGGATACAATATTAGCAGGCTTGTCCACTCTGCCTGGCAACCC |
| CDS:non-structural p | 742 | N F I S G I Q Y L A G L S T L P G N P |
| CDS:polyprotein [Hep Query | 1787 | I A S L M A F T A S I T S P L T T Q H |
| | 5700 | ATAGCATCACTGATGGCATTACAGCCTCTATCACCAAGCCGCTCACCAACCAACA |
| Sbjct | 4096 | ATAGCATCACTGATGGCATTACAGCCTCTATCACCAAGCCGCTCACCAACCAACA |
| CDS:non-structural p | 762 | I A S L M A F T A S I T S P L T T Q H |
| CDS:polyprotein [Hep Query | 1807 | L L F N I L G G W V A A Q L A P P S A |
| | 5760 | CTCCTGTTAACATCCTGGGGGATGGGTGGCGCCCAACTTGCTCCTCCCAGCGC |
| Sbjct | 4156 | CTCCTGTTAACATCCTGGGGGATGGGTGGCGCCCAACTTGCTCCTCCCAGCGC |
| CDS:non-structural p | 782 | L L F N I L G G W V A A Q L A P P S A |
| CDS:polyprotein [Hep Query | 1827 | S A F V G A G I A G A A V G S I G L G |
| | 5820 | TCTGCTTCGTAGGCAGCCGGCATCGCTGGAGCGGCTGTTGGCAGCATAGGCCTTGG |
| Sbjct | 4216 | TCTGCTTCGTAGGCAGCCGGCATCGCTGGAGCGGCTGTTGGCAGCATAGGCCTTGG |
| CDS:non-structural p | 802 | S A F V G A G I A G A A V G S I G L G |
| CDS:polyprotein [Hep Query | 1847 | V L V D I L A G Y G A G V A G A L V A |
| | 5880 | GTGCTTGTGGATATTGGCAGGTTATGGAGCAGGGGTGGCAGGCGCCTCGTGGC |
| Sbjct | 4276 | GTGCTTGTGGATATTGGCAGGTTATGGAGCAGGGGTGGCAGGCGCCTCGTGGC |

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| CDS:non-structural p | 822 | V L V D I L A G Y G A G V A G A L V A |
| CDS:polyprotein [Hep Query | 1867 | K V M S G E M P S T E D L V N L L P A |
| | 5940 | AAGGTCATGAGCGGCAGATGCCCTCCACCGAGGACCTGGTAACCTACTCCCTGC |
| Sbjct | 4336 | AAGGTCATGAGCGGCAGATGCCCTCCACCGAGGACCTGGTAACCTACTCCCTGC |
| CDS:non-structural p | 842 | K V M S G E M P S T E D L V N L L P A |
| CDS:polyprotein [Hep Query | 1887 | L S P G A L V V G V V C A A I L R R H |
| | 6000 | CTCTCCCCTGGCGCCCTAGTCGTGGGTCGTGCGCAGCGATACTGCGTCGGCA |
| Sbjct | 4396 | CTCTCCCCTGGCGCCCTAGTCGTGGGTCGTGCGCAGCGATACTGCGTCGGCA |
| CDS:non-structural p | 862 | L S P G A L V V G V V C A A I L R R H |
| CDS:polyprotein [Hep Query | 1907 | G P G E G A V Q W M N R L I A F A S R |
| | 6060 | GGCCCAGGGAGGGGCTGTGCAGTGGATGAACCGGCTGATAGCGTTCGCTCGCG |
| Sbjct | 4456 | GGCCCAGGGAGGGGCTGTGCAGTGGATGAACCGGCTGATAGCGTTCGCTCGCG |
| CDS:non-structural p | 882 | G P G E G A V Q W M N R L I A F A S R |
| CDS:polyprotein [Hep Query | 1927 | N H V S P T H Y V P E S D A A A A R V T |
| | 6120 | AACCACGTCTCCCCACGCACTATGTGCCTGAGAGCGACGCTGCAGCACGTGTCAC |
| Sbjct | 4516 | AACCACGTCTCCCCACGCACTATGTGCCTGAGAGCGACGCTGCAGCACGTGTCAC |
| CDS:non-structural p | 902 | N H V S P T H Y V P E S D A A A A R V T |
| CDS:polyprotein [Hep Query | 1947 | I L S S L T I T Q L L K R L H Q W I N |
| | 6180 | ATCCTCTCTAGTCTTACCATCACTCAGCTGCTGAAGAGGCTTCACCAAGTGGATCAA |
| Sbjct | 4576 | ATCCTCTCTAGTCTTACCATCACTCAGCTGCTGAAGAGGCTTCACCAAGTGGATCAA |
| CDS:non-structural p | 922 | I L S S L T I T Q L L K R L H Q W I N |
| CDS:polyprotein [Hep Query | 1967 | D C S T P C S G S W L R D V W D W I C |
| | 6240 | GACTGCTCCACGCCATGCTCGGCTCGTGGCTAAGAGATGTTGGGATTGGATATG |
| Sbjct | 4636 | GACTGCTCCACGCCATGCTCGGCTCGTGGCTAAGAGATGTTGGGATTGGATATG |
| CDS:non-structural p | 942 | D C S T P C S G S W L R D V W D W I C |
| CDS:polyprotein [Hep Query | 1987 | V L T D F K T W L Q S K L L P R L P G |
| | 6300 | GTGTTGACTGATTCAAGACCTGGCTCCAGTCCAAGCTCCTGCCCGATTGCCGGG |
| Sbjct | 4696 | GTGTTGACTGATTCAAGACCTGGCTCCAGTCCAAGCTCCTGCCCGATTGCCGGG |
| CDS:non-structural p | 962 | V L T D F K T W L Q S K L L P R L P G |
| CDS:polyprotein [Hep Query | 2007 | P F F S C Q R G Y K G V W R G D G I M |
| | 6360 | CCCTCTTCTCATGTCAACGTGGTACAAGGGAGTCTGGCGGGGCGACGGCATCAT |
| Sbjct | 4756 | CCCTCTTCTCATGTCAACGTGGTACAAGGGAGTCTGGCGGGGCGACGGCATCAT |
| CDS:non-structural p | 982 | P F F S C Q R G Y K G V W R G D G I M |
| CDS:polyprotein [Hep Query | 2027 | T T C P C G A Q I T G H V K N G S M R |
| | 6420 | ACCACCTGCCATGTGGAGCACAGATCACCGGACATGTGAAAAACGGTTCCATGAG |
| Sbjct | 4816 | ACCACCTGCCATGTGGAGCACAGATCACCGGACATGTGAAAAACGGTTCCATGAG |
| CDS:non-structural p | 1002 | T T C P C G A Q I T G H V K N G S M R |
| CDS:polyprotein [Hep Query | 2047 | V G P R T C S N T W H G T F P I N A Y |
| | 6480 | GTGGGGCCTAGGACCTGTAGTAACACGTGGCATGGAACATTCCTTAAACCGCGTA |
| Sbjct | 4876 | GTGGGGCCTAGGACCTGTAGTAACACGTGGCATGGAACATTCCTTAAACCGCGTA |

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| CDS:non-structural p | 1022 | V G P R T C S N T W H G T F P I N A Y |
| CDS:polyprotein [Hep Query | 2067 | T G P C T P S P A P N Y S R A L W R V |
| | 6540 | ACGGGCCCCCTGCACGCCCTCCCGGCCAAATTATTCTAGGGCGCTGTGGCGGGT |
| Sbjct | 4936 | |
| CDS:non-structural p | 1042 | ACGGGCCCCCTGCACGCCCTCCCGGCCAAATTATTCTAGGGCGCTGTGGCGGGT |
| | T G P C T P S P A P N Y S R A L W R V | |
| CDS:polyprotein [Hep Query | 2087 | A E E Y V E V T R V G D F H Y V T G M |
| | 6600 | GCTGAGGAGTACGTGGAGGTTACGCCGGTGGGGATTCCACTACGTGACGGCAT |
| Sbjct | 4996 | |
| CDS:non-structural p | 1062 | GCTGAGGAGTACGTGGAGGTTACGCCGGTGGGGATTCCACTACGTGACGGCAT |
| | A E E Y V E V T R V G D F H Y V T G M | |
| CDS:polyprotein [Hep Query | 2107 | T D N V K C P C Q V P A P E F F T E V |
| | 6660 | ACTGACAACGTAAAGTGCCCGTGTCAAGGTTCCGGCCCCCGAATTCTTCACAGAAGT |
| Sbjct | 5056 | |
| CDS:non-structural p | 1082 | ACTGACAACGTAAAGTGCCCGTGTCAAGGTTCCGGCCCCCGAATTCTTCACAGAAGT |
| | T D N V K C P C Q V P A P E F F T E V | |
| CDS:polyprotein [Hep Query | 2127 | G V R L H R Y A P A C K P L L R E E V |
| | 6720 | GGGGTGCGGTTGCACAGGTACGCTCCAGCGTCAAACCCCTCCTACGGGAGGAGT |
| Sbjct | 5116 | |
| CDS:non-structural p | 1102 | GGGGTGCGGTTGCACAGGTACGCTCCAGCGTCAAACCCCTCCTACGGGAGGAGT |
| | G V R L H R Y A P A C K P L L R E E V | |
| CDS:polyprotein [Hep Query | 2147 | F L V G L N Q Y L V G S Q L P C E P E |
| | 6780 | TTCCCTGGTCGGGCTCAATCAATACCTGGTGGGTACAGCTCCATGCGAGCCGA |
| Sbjct | 5176 | |
| CDS:non-structural p | 1122 | TTCCCTGGTCGGGCTCAATCAATACCTGGTGGGTACAGCTCCATGCGAGCCGA |
| | F L V G L N Q Y L V G S Q L P C E P E | |
| CDS:polyprotein [Hep Query | 2167 | D V A V L T S M L T D P S H I T A E T |
| | 6840 | GACGTAGCAGTGCCTACTCCATGCTACCGGACCCCTCCCACATTACGGCGGAGAC |
| Sbjct | 5236 | |
| CDS:non-structural p | 1142 | GACGTAGCAGTGCCTACTCCATGCTACCGGACCCCTCCCACATTACGGCGGAGAC |
| | D V A V L T S M L T D P S H I T A E T | |
| CDS:polyprotein [Hep Query | 2187 | K R R L A R G S P P S L A S S S A S Q |
| | 6900 | AAGCGTAGGCTGGCCAGGGATCTCCCCCTCCTGGCCAGCTCATCAGCTAGCCA |
| Sbjct | 5296 | |
| CDS:non-structural p | 1162 | AAGCGTAGGCTGGCCAGGGATCTCCCCCTCCTGGCCAGCTCATCAGCTAGCCA |
| | K R R L A R G S P P S L A S S S A S Q | |
| CDS:polyprotein [Hep Query | 2207 | S A P S L K A T C T T R H D S P D A D |
| | 6960 | TCTGCGCCTCCTTGAAGGCAACATGCACTACCCGTACATGACTCCCCGGACGCTGA |
| Sbjct | 5356 | |
| CDS:non-structural p | 1182 | TCTGCGCCTCCTTGAAGGCAACATGCACTACCCGTACATGACTCCCCGGACGCTGA |
| | S A P S L K A T C T T R H D S P D A D | |
| CDS:polyprotein [Hep Query | 2227 | I E A N L L W R Q E M G G N I T R V E |
| | 7020 | ATCGAGGCCAACCTCCTGTGGCGGCAGGAGATGGCGGGAACATCACCCGCGTGG |
| Sbjct | 5416 | |
| CDS:non-structural p | 1202 | ATCGAGGCCAACCTCCTGTGGCGGCAGGAGATGGCGGGAACATCACCCGCGTGG |
| | I E A N L L W R Q E M G G N I T R V E | |
| CDS:polyprotein [Hep Query | 2247 | E N K V V I L D S F E P L Q A E E D E |
| | 7080 | GAAAATAAGGTAGTAATTGGACTCTTCGAGCCGCTCAAGCGGAGGAGGATGA |
| Sbjct | 5476 | |
| | GAAAATAAGGTAGTAATTGGACTCTTCGAGCCGCTCAAGCGGAGGAGGATGA | |

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| CDS:non-structural p | 1222 | E N K V V I L D S F E P L Q A E E D E |
| CDS:polyprotein [Hep Query | 2267 | E V S V P A E I L R R S R K F P R A M |
| | 7140 | GAAGTATCCGTTCCGGCGGAGATCCTGCGGAGGTCCAGGAAATTCCCTCGAGCGAT |
| Sbjct | 5536 | |
| CDS:non-structural p | 1242 | GAAGTATCCGTTCCGGCGGAGATCCTGCGGAGGTCCAGGAAATTCCCTCGAGCGAT |
| E V S V P A E I L R R S R K F P R A M | | |
| CDS:polyprotein [Hep Query | 2287 | I W A R P D Y N P P L L E S W K D P D |
| | 7200 | ATATGGGCACGCCCGGATTACAACCCCTCCACTGTTAGAGTCCTGAAAGGACCCGGA |
| Sbjct | 5596 | |
| CDS:non-structural p | 1262 | ATATGGGCACGCCCGGATTACAACCCCTCCACTGTTAGAGTCCTGAAAGGACCCGGA |
| I W A R P D Y N P P L L E S W K D P D | | |
| CDS:polyprotein [Hep Query | 2307 | V P P V V H G C P L P P A K A P P I P |
| | 7260 | GTCCCTCCAGTGGTACACGGGTGTCATTGCCGCTGCCAAGGCCCTCCGATACC |
| Sbjct | 5656 | |
| CDS:non-structural p | 1282 | GTCCCTCCAGTGGTACACGGGTGTCATTGCCGCTGCCAAGGCCCTCCGATACC |
| V P P V V H G C P L P P A K A P P I P | | |
| CDS:polyprotein [Hep Query | 2327 | P R R K R T V V L S E S T V S S A L A |
| | 7320 | CCACGGAGGAAGAGGACGGTTGTCCTGTCAAATCTACCGTGTCTCTGCCCTGGC |
| Sbjct | 5716 | |
| CDS:non-structural p | 1302 | CCACGGAGGAAGAGGACGGTTGTCCTGTCAAATCTACCGTGTCTCTGCCCTGGC |
| P R R K R T V V L S E S T V S S A L A | | |
| CDS:polyprotein [Hep Query | 2347 | L A T K T F G S S E S S A V D S G T A |
| | 7380 | CTCGCCACAAAGACCTCGGCAGCTCCGAATCGTCGGCCGTCGACAGCGGCACGGC |
| Sbjct | 5776 | |
| CDS:non-structural p | 1322 | CTCGCCACAAAGACCTCGGCAGCTCCGAATCGTCGGCCGTCGACAGCGGCACGGC |
| L A T K T F G S S E S S A V D S G T A | | |
| CDS:polyprotein [Hep Query | 2367 | A S P D Q P S D D G D A G S D V E S Y |
| | 7440 | GCCTCTCCTGACCAGCCCTCCGACGACGGCGACGCCGGATCCGACGTTGAGTCGTA |
| Sbjct | 5836 | |
| CDS:non-structural p | 1342 | GCCTCTCCTGACCAGCCCTCCGACGACGGCGACGCCGGATCCGACGTTGAGTCGTA |
| A S P D Q P S D D G D A G S D V E S Y | | |
| CDS:polyprotein [Hep Query | 2387 | S M P P L E G E P G D P D L S D G S W |
| | 7500 | TCCATGCCCTCTGAGGGGGAGCCGGGGATCCGATCTCAGCGACGGGTCTTG |
| Sbjct | 5896 | |
| CDS:non-structural p | 1362 | TCCATGCCCTCTGAGGGGGAGCCGGGGATCCGATCTCAGCGACGGGTCTTG |
| S M P P L E G E P G D P D L S D G S W | | |
| CDS:polyprotein [Hep Query | 2407 | T V S E E A S E D V V C C S M S Y T W |
| | 7560 | ACCGTAAGCGAGGAGGCTAGTGAGGACGCTGCTGCTCGATGTCCTACACATG |
| Sbjct | 5956 | |
| CDS:non-structural p | 1382 | ACCGTAAGCGAGGAGGCTAGTGAGGACGCTGCTGCTCGATGTCCTACACATG |
| T V S E E A S E D V V C C S M S Y T W | | |
| CDS:polyprotein [Hep Query | 2427 | G A L I T P C A A E E T K L P I N A L |
| | 7620 | GGCGCCCTGATCACGCCATGCGCTGCGAGGAAACCAAGCTGCCATCAATGCACT |
| Sbjct | 6016 | |
| CDS:non-structural p | 1402 | GGCGCCCTGATCACGCCATGCGCTGCGAGGAAACCAAGCTGCCATCAATGCACT |
| G A L I T P C A A E E T K L P I N A L | | |
| CDS:polyprotein [Hep Query | 2447 | N S L L R H H N L V Y A T T S R S A S |
| | 7680 | AACTCTTGCTCCGTACCCACAACCTGGTCTATGCTACAACATCTCGCAGCGCAAG |
| Sbjct | 6076 | |
| AACTCTTGCTCCGTACCCACAACCTGGTCTATGCTACAACATCTCGCAGCGCAAG | | |

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| CDS:non-structural p | 1422 | N S L L R H H N L V Y A T T S R S A S |
| CDS:polyprotein [Hep Query | 2467 | R Q K K V T F D R L Q V L D D H Y R D |
| | 7740 | CGGCAGAAGAAGGTACCTTTGACAGACTGCAGGTCTGGACGACCACTACGGGA |
| Sbjct | 6136 | CGGCAGAAGAAGGTACCTTTGACAGACTGCAGGTCTGGACGACCACTACGGGA |
| CDS:non-structural p | 1442 | R Q K K V T F D R L Q V L D D H Y R D |
| CDS:polyprotein [Hep Query | 2487 | L K E M K A K A S T V K A K L L S V E |
| | 7800 | CTCAAGGAGATGAAGGCCAAGCGTCCACAGTTAAGGCTAAACTCTATCCGTGGA |
| Sbjct | 6196 | CTCAAGGAGATGAAGGCCAAGCGTCCACAGTTAAGGCTAAACTCTATCCGTGGA |
| CDS:non-structural p | 1462 | L K E M K A K A S T V K A K L L S V E |
| CDS:polyprotein [Hep Query | 2507 | A C K L T P P H S A R S K F G Y G A K |
| | 7860 | GCCTGTAAGCTGACGCCACATTGGCCAGATCTAAATTGGCTATGGGCAA |
| Sbjct | 6256 | GCCTGTAAGCTGACGCCACATTGGCCAGATCTAAATTGGCTATGGGCAA |
| CDS:non-structural p | 1482 | A C K L T P P H S A R S K F G Y G A K |
| CDS:polyprotein [Hep Query | 2527 | V R N L S S K A V N H I R S V W K D L |
| | 7920 | GTCCGGAACCTATCCAGCAAGGCCGTTAACCATCCGCTCCGTGTGGAAGGACTT |
| Sbjct | 6316 | GTCCGGAACCTATCCAGCAAGGCCGTTAACCATCCGCTCCGTGTGGAAGGACTT |
| CDS:non-structural p | 1502 | V R N L S S K A V N H I R S V W K D L |
| CDS:polyprotein [Hep Query | 2547 | E D T E T P I D T T I M A K N E V F C |
| | 7980 | GAAGACACTGAGACACCAATTGACACCACATGGCAAAAAATGAGGTTTCTG |
| Sbjct | 6376 | GAAGACACTGAGACACCAATTGACACCACATGGCAAAAAATGAGGTTTCTG |
| CDS:non-structural p | 1522 | E D T E T P I D T T I M A K N E V F C |
| CDS:polyprotein [Hep Query | 2567 | Q P E K G G R K P A R L I V F P D L G |
| | 8040 | CAACCAGAGAAGGGGGCCGAAGCCAGCTCGCCTATCGTATTCCCAGATTGGG |
| Sbjct | 6436 | CAACCAGAGAAGGGGGCCGAAGCCAGCTCGCCTATCGTATTCCCAGATTGGG |
| CDS:non-structural p | 1542 | Q P E K G G R K P A R L I V F P D L G |
| CDS:polyprotein [Hep Query | 2587 | R V C E K M A L Y D V V S T L P Q A V |
| | 8100 | CGTGTGTGCGAGAAAATGCCCTTACGATGTGGCTCCACCCCTCAGGCCGT |
| Sbjct | 6496 | CGTGTGTGCGAGAAAATGCCCTTACGATGTGGCTCCACCCCTCAGGCCGT |
| CDS:non-structural p | 1562 | R V C E K M A L Y D V V S T L P Q A V |
| CDS:polyprotein [Hep Query | 2607 | G S S Y G F Q Y S P G Q R V E F L V N |
| | 8160 | GGCTCTTCATACGGATTCCAATACTCTCCTGGACAGCGGGTCGAGTTCTGGTAA |
| Sbjct | 6556 | GGCTCTTCATACGGATTCCAATACTCTCCTGGACAGCGGGTCGAGTTCTGGTAA |
| CDS:non-structural p | 1582 | G S S Y G F Q Y S P G Q R V E F L V N |
| CDS:polyprotein [Hep Query | 2627 | W K A K K C P M G F A Y D T R C F D S |
| | 8220 | TGGAAAGCGAAGAAATGCCCTATGGGCTTCGCATATGACACCCGCTTTGACTC |
| Sbjct | 6616 | TGGAAAGCGAAGAAATGCCCTATGGGCTTCGCATATGACACCCGCTTTGACTC |
| CDS:non-structural p | 1602 | W K A K K C P M G F A Y D T R C F D S |
| CDS:polyprotein [Hep Query | 2647 | V T E N D I R V E E S I Y Q C C D L A |
| | 8280 | GTCACTGAGAATGACATCCGTGTTGAGGAGTCAATCTACCAATGTTGTGACTTGGC |
| Sbjct | 6676 | GTCACTGAGAATGACATCCGTGTTGAGGAGTCAATCTACCAATGTTGTGACTTGGC |

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| CDS:non-structural p | 1622 | V T E N D I R V E E S I Y Q C C D L A |
| CDS:polyprotein [Hep Query | 2667 | E A R Q A I R S L T E R L Y I G G P L |
| | 8340 | GAAGCCAGACAGGCCATAAGGTCGCTCACAGAGCGGCTTACATCGGGGGCCCCCT |
| Sbjct | 6736 | |
| CDS:non-structural p | 1642 | GAAGCCAGACAGGCCATAAGGTCGCTCACAGAGCGGCTTACATCGGGGGCCCCCT |
| E A R Q A I R S L T E R L Y I G G P L | | |
| CDS:polyprotein [Hep Query | 2687 | N S K G Q N C G Y R R C R A S G V L T |
| | 8400 | AATTCTAAAGGGCAGAAC T GCGGCTATGCCGGTGCCGCGAGCGGTGTACTGAC |
| Sbjct | 6796 | |
| CDS:non-structural p | 1662 | AATTCTAAAGGGCAGAAC T GCGGCTATGCCGGTGCCGCGAGCGGTGTACTGAC |
| N S K G Q N C G Y R R C R A S G V L T | | |
| CDS:polyprotein [Hep Query | 2707 | S C G N T L T C Y L K A A A A A C R A A |
| | 8460 | AGCTGCGGTAATACCTCACATGTTACTTGAAGGCCGCTGCGGCCTGTCGAGCTGC |
| Sbjct | 6856 | |
| CDS:non-structural p | 1682 | AGCTGCGGTAATACCTCACATGTTACTTGAAGGCCGCTGCGGCCTGTCGAGCTGC |
| S C G N T L T C Y L K A A A A A C R A A | | |
| CDS:polyprotein [Hep Query | 2727 | L Q D C T M L V C G D D L V V I C E S |
| | 8520 | CTCCAGGACTGCACGATGCTCGTATGCGGAGACGACCTTGTCTGTTATCTGTGAAAG |
| Sbjct | 6916 | |
| CDS:non-structural p | 1702 | CTCCAGGACTGCACGATGCTCGTATGCGGAGACGACCTTGTCTGTTATCTGTGAAAG |
| L Q D C T M L V C G D D L V V I C E S | | |
| CDS:polyprotein [Hep Query | 2747 | G T Q E D E A S L R A F T E A M T R Y |
| | 8580 | GGGACCCAAGAGGACGAGGCGAGCCTACGGGCTTCACGGAGGCTATGACTAGATA |
| Sbjct | 6976 | |
| CDS:non-structural p | 1722 | GGGACCCAAGAGGACGAGGCGAGCCTACGGGCTTCACGGAGGCTATGACTAGATA |
| G T Q E D E A S L R A F T E A M T R Y | | |
| CDS:polyprotein [Hep Query | 2767 | A P P G D P P K P E Y D L E L I T S C |
| | 8640 | GCCCCCCCCTGGGGACCCGCCAAACCAGAACATGACTTGGAGTTGATAACATCATG |
| Sbjct | 7036 | |
| CDS:non-structural p | 1742 | GCCCCCCCCTGGGGACCCGCCAAACCAGAACATGACTTGGAGTTGATAACATCATG |
| A P P G D P P K P E Y D L E L I T S C | | |
| CDS:polyprotein [Hep Query | 2787 | S N V S V A H D A S G K R V Y Y L T R |
| | 8700 | TCCAATGTGTCA G TGCACGATGCATCTGGCAAAAGGGTGTACTATCTCACCCG |
| Sbjct | 7096 | |
| CDS:non-structural p | 1762 | TCCAATGTGTCA G TGCACGATGCATCTGGCAAAAGGGTGTACTATCTCACCCG |
| S N V S V A H D A S G K R V Y Y L T R | | |
| CDS:polyprotein [Hep Query | 2807 | P T T P L A R A A W E T A R H T P V N |
| | 8760 | CCCACCA CCCC CTGGCGGGCTGGTGGAGACAGCTAGACACACTCCAGTC |
| Sbjct | 7156 | |
| CDS:non-structural p | 1782 | CCCACCA CCCC CTGGCGGGCTGGTGGAGACAGCTAGACACACTCCAGTC |
| P T T P L A R A A W E T A R H T P V N | | |
| CDS:polyprotein [Hep Query | 2827 | W L G N I I M Y A P T L W A R M I L M |
| | 8820 | TGGCTAGGAAACATCATCATGTATGCGCCCACCTGTGGCAAGGATGATCCTGAT |
| Sbjct | 7216 | |
| CDS:non-structural p | 1802 | TGGCTAGGAAACATCATCATGTATGCGCCCACCTGTGGCAAGGATGATCCTGAT |
| W L G N I I M Y A P T L W A R M I L M | | |
| CDS:polyprotein [Hep Query | 2847 | H F F S I L L A Q E Q L E K A L D C Q |
| | 8880 | CATTCTTCTCCATCCTCTAGCTAGGAACAACTTGAAAAAGCCCTAGATTGTCA |
| Sbjct | 7276 | |
| CATTCTTCTCCATCCTCTAGCTAGGAACAACTTGAAAAAGCCCTAGATTGTCA | | |

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| CDS:non-structural p | 1822 | H F F S I L L A Q E Q L E K A L D C Q |
| CDS:polyprotein [Hep Query | 2867 8940 | Y G A C Y S I E P L D L P Q I I Q R L TACGGGGCCTGTTACTCCATTGAGCCACTTGACCTACCTCAGATCATTCAACGACT |
| Sbjct | 7336 | TACGGGGCCTGTTACTCCATTGAGCCACTTGACCTACCTCAGATCATTCAACGACT |
| CDS:non-structural p | 1842 | Y G A C Y S I E P L D L P Q I I Q R L |
| CDS:polyprotein [Hep Query | 2887 9000 | G L S A F S L H S Y S P G E I N R V A GGCCTTAGCGCATTTCACTCCATAGTTACTCTCCAGGTGAGATCAATAGGGTGGC |
| Sbjct | 7396 | GGCCTTAGCGCATTTCACTCCATAGTTACTCTCCAGGTGAGATCAATAGGGTGGC |
| CDS:non-structural p | 1862 | G L S A F S L H S Y S P G E I N R V A |
| CDS:polyprotein [Hep Query | 2907 9060 | C L R K L G V P P L R V W R H R A R S TGCCCTAGGAAACTTGGGGTACCGCCCTTGCAGTCTGGAGACATCGGGCCAGAAG |
| Sbjct | 7456 | TGCCCTAGGAAACTTGGGGTACCGCCCTTGCAGTCTGGAGACATCGGGCCAGAAG |
| CDS:non-structural p | 1882 | C L R K L G V P P L R V W R H R A R S |
| CDS:polyprotein [Hep Query | 2927 9120 | R A R L L S Q G G R A A T C G K Y L F CGCGCTAGGCTACTGTCCCAGGGGGGGAGGGCTGCCACTTGTGGCAAGTACCTCTT |
| Sbjct | 7516 | CGCGCTAGGCTACTGTCCCAGGGGGGGAGGGCTGCCACTTGTGGCAAGTACCTCTT |
| CDS:non-structural p | 1902 | R A R L L S Q G G R A A T C G K Y L F |
| CDS:polyprotein [Hep Query | 2947 9180 | W A V R T K L K L T P I P A A S Q L D TGGGCAGTAAGGACCAAGCTCAAACACTCCAATCCGGCTCGTCCCAGTTGGA |
| Sbjct | 7576 | TGGGCAGTAAGGACCAAGCTCAAACACTCCAATCCGGCTCGTCCCAGTTGGA |
| CDS:non-structural p | 1922 | W A V R T K L K L T P I P A A S Q L D |
| CDS:polyprotein [Hep Query | 2967 9240 | S S W F V A G Y S G G D I Y H S L S R TCCAGCTGGTCGTTGCTGGTTACAGCGGGGGAGACATATATCACAGCCTGTCTCG |
| Sbjct | 7636 | TCCAGCTGGTCGTTGCTGGTTACAGCGGGGGAGACATATATCACAGCCTGTCTCG |
| CDS:non-structural p | 1942 | S S W F V A G Y S G G D I Y H S L S R |
| CDS:polyprotein [Hep Query | 2987 9300 | R P R W F M W C L L L S V G V G I Y CGACCCCGCTGGTCATGTGGTGCCTACTCCTACTTCTGTAGGGTAGGCATCTA |
| Sbjct | 7696 | CGACCCCGCTGGTCATGTGGTGCCTACTCCTACTTCTGTAGGGTAGGCATCTA |
| CDS:non-structural p | 1962 | R P R W F M W C L L L S V G V G I Y |
| CDS:polyprotein [Hep Query | 3007 9360 | L P N R CTCCCCAACCGATGAACGGGGAGCTAAACACTCCAGGCCAATAGGCCATCCTG 9 |
| Sbjct | 7756 | CTCCCCAACCGATGAACGGGGAGCTAAACACTCCAGGCCAATAGGCCATCCTG 7 |
| CDS:non-structural p | 1982 | L P N R |

Score = 719 bits (374), Expect = 0.0
 Identities = 388/388 (100%), Gaps = 0/388 (0%)
 Strand=Plus/Plus

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|----------------------|-----|--|-------------|
| Query | 2 | CCAGCCCCCGATTGGGGCGACACTCCACCATAGATCACTCCCTGTGAGGAAC | TAC |
| | | | |
| Sbjct | 2 | CCAGCCCCCGATTGGGGCGACACTCCACCATAGATCACTCCCTGTGAGGAAC | TAC |
| | | | |
| Query | 62 | CTTCACGCAGAAAGCGTCTAGCCATGGCGTTAGTATGAGTGTGTCGTGCAGC | CTCCAGG |
| | | | |
| Sbjct | 62 | CTTCACGCAGAAAGCGTCTAGCCATGGCGTTAGTATGAGTGTGTCGTGCAGC | CTCCAGG |
| | | | |
| Query | 122 | CCCCCTCCCGGGAGAGCCATAGTGGTCTGCGAACCGGTGAGTACACCGGA | ATTGCC |
| | | | |
| Sbjct | 122 | CCCCCTCCCGGGAGAGCCATAGTGGTCTGCGAACCGGTGAGTACACCGGA | ATTGCC |
| | | | |
| Query | 182 | ACGACCGGGTCTTTCTTGGATCAACCCGCTCAATGCCTGGAGATTGGCGT | GCCC |
| | | | |
| Sbjct | 182 | ACGACCGGGTCTTTCTTGGATCAACCCGCTCAATGCCTGGAGATTGGCGT | GCCC |
| | | | |
| Query | 242 | CGAGACTGCTAGCCGAGTAGTGGTGGTGGCTGCGAAAGGCCTTGTGGT | ACTGCCTGATA |
| | | | |
| Sbjct | 242 | CGAGACTGCTAGCCGAGTAGTGGTGGTGGCTGCGAAAGGCCTTGTGGT | ACTGCCTGATA |
| | | | |
| CDS:polyprotein [Hep | 1 | | M S T N P K |
| Query | 302 | TGCTTGCAGTGCCCCGGGAGGTCTCGTAGACCGTGCACCATGAGCAC | GAATCCTAA |
| | | | |
| Sbjct | 302 | TGCTTGCAGTGCCCCGGGAGGTCTCGTAGACCGTGCACCATGAGCAC | GAATCCTAA |
| CDS:core-neo fusion | 1 | | M S T N P K |
| CDS:polyprotein [Hep | 8 | Q R K T K R N T N | |
| Query | 362 | TCAAAGAAAAACCAAACGTAACACCAAC | 389 |
| | | | |
| Sbjct | 362 | TCAAAGAAAAACCAAACGTAACACCAAC | 389 |
| CDS:core-neo fusion | 8 | Q R K T K R N T N | |

Score = 189 bits (98), Expect = 2e-43
 Identities = 98/98 (100%), Gaps = 0/98 (0%)
 Strand=Plus/Plus

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|-------|------|--|------|
| Query | 9508 | GGTGGCTCCATCTTAGCCCTAGTCACGGCTAGCTGTGAAAGGTCCGTGAGCCGCTTGACT | 9567 |
| | | | |
| Sbjct | 7904 | GGTGGCTCCATCTTAGCCCTAGTCACGGCTAGCTGTGAAAGGTCCGTGAGCCGCTTGACT | 7963 |
| | | | |
| Query | 9568 | GCAGAGAGTGCTGATACTGGCCTCTGCAGATCAAGT | 9605 |
| | | | |
| Sbjct | 7964 | GCAGAGAGTGCTGATACTGGCCTCTGCAGATCAAGT | 8001 |

CPU time: 0.15 user secs. 0.05 sys. secs 0.20 total secs.

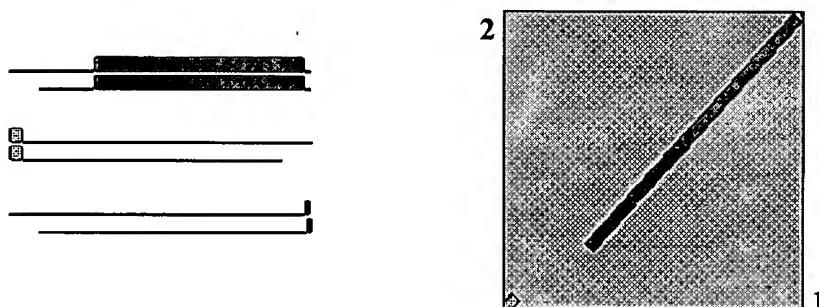
BLAST 2 SEQUENCES RESULTS VERSION BLASTN 2.2.17 [Aug-26-2007]

Match: 1 Mismatch: 2 gap open: 5 gap extension: 2

x_dropoff: 0 expect: 10.0000 wordsize: 11 Filter View option StandardMasking character option X for protein, n for nucleotide Masking color option Black Show CDS translation Align

Sequence 1: gi|5420376|Hepatitis C virus type 1b complete genome, isolate Con1
 Length = 9604 (1 .. 9605)

Sequence 2: gi|5441837|Hepatitis C virus replicon I389/NS2-3'UTR
 Length = 8648 (1 .. 8649)



NOTE: Bitscore and expect value are calculated based on the size of the nr database.

NOTE: If protein translation is reversed, please repeat the search with reverse strand of the query sequence.



Score = 1.261e+04 bits (6560), Expect = 0.0
 Identities = 6646/6646 (100%), Gaps = 0/6646 (0%)
 Strand=Plus/Plus

| | | |
|----------------------|------|--|
| CDS:polyprotein [Hep | 809 | A M D R E M A A S C G G A V F V G L I |
| Query | 2767 | CCATGGACCGGGAGATGGCAGCATCGTGCAGGCGCGGTTTCGTAGGTCTGATA |
| | | |
| Sbjct | 1811 | CCATGGACCGGGAGATGGCAGCATCGTGCAGGCGCGGTTTCGTAGGTCTGATA |
| CDS:non-structural p | 1 | .. M D R E M A A S C G G A V F V G L I |
| CDS:polyprotein [Hep | 829 | L T L S P H Y K L F L A R L I W W L Q |
| Query | 2827 | TGACCTTGTCAACCGCACTATAAGCTGTTCTCGCTAGGCTCATATGGTGGTTACAA |
| | | |
| Sbjct | 1871 | TGACCTTGTCAACCGCACTATAAGCTGTTCTCGCTAGGCTCATATGGTGGTTACAA |

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| CDS:non-structural p | 20 | L T L S P H Y K L F L A R L I W W L Q |
| CDS:polyprotein [Hep Query | 849 | F I T R A E A H L Q V W I P P L N V R |
| | 2887 | TTATCACCAAGGGCGAGGCACACTGCAAGTGTGGATCCCCCCCCCTAACGTCGG |
| Sbjct | 1931 | TTATCACCAAGGGCGAGGCACACTGCAAGTGTGGATCCCCCCCCCTAACGTCGG |
| CDS:non-structural p | 40 | F I T R A E A H L Q V W I P P L N V R |
| CDS:polyprotein [Hep Query | 869 | G R D A V I L L T C A I H P E L I F T |
| | 2947 | GCCCGCATGCCGTACATCCTCCTCACGTGCGCGATCCACCCAGAGCTAACCTTAC |
| Sbjct | 1991 | GCCCGCATGCCGTACATCCTCCTCACGTGCGCGATCCACCCAGAGCTAACCTTAC |
| CDS:non-structural p | 60 | G R D A V I L L T C A I H P E L I F T |
| CDS:polyprotein [Hep Query | 889 | T K I L L A I L G P L M V L Q A G I T |
| | 3007 | CCAAAATCTGCTGCCATACTCGGTCCACTCATGGTGCTCCAGGCTGGTATAACC |
| Sbjct | 2051 | CCAAAATCTGCTGCCATACTCGGTCCACTCATGGTGCTCCAGGCTGGTATAACC |
| CDS:non-structural p | 80 | T K I L L A I L G P L M V L Q A G I T |
| CDS:polyprotein [Hep Query | 909 | V P Y F V R A H G L I R A C M L V R K |
| | 3067 | TGCCGTACTTCGTGCGCGCACACGGGCTATTGTCATGCATGCTGGTGCAGGAAG |
| Sbjct | 2111 | TGCCGTACTTCGTGCGCGCACACGGGCTATTGTCATGCATGCTGGTGCAGGAAG |
| CDS:non-structural p | 100 | V P Y F V R A H G L I R A C M L V R K |
| CDS:polyprotein [Hep Query | 929 | A G G H Y V Q M A L M K L A A L T G T |
| | 3127 | CTGGGGGTCAATTATGTCCAAATGGCTCTCATGAAGTTGGCCGACTGACAGGTACGT |
| Sbjct | 2171 | CTGGGGGTCAATTATGTCCAAATGGCTCTCATGAAGTTGGCCGACTGACAGGTACG |
| CDS:non-structural p | 120 | A G G H Y V Q M A L M K L A A L T G T |
| CDS:polyprotein [Hep Query | 949 | V Y D H L T P L R D W A H A G L R D L |
| | 3187 | TTTATGACCATCTCACCCACTGCGGGACTGGGCCACCGCGGGCTACGAGACCTT |
| Sbjct | 2231 | TTTATGACCATCTCACCCACTGCGGGACTGGGCCACCGCGGGCTACGAGACCTT |
| CDS:non-structural p | 140 | V Y D H L T P L R D W A H A G L R D L |
| CDS:polyprotein [Hep Query | 969 | V A V E P V V F S D M E T K V I T W G |
| | 3247 | TGGCAGTTGAGCCCGTCGTCTCTCATGATATGGAGACCAAGGTTATCACCTGGGG |
| Sbjct | 2291 | TGGCAGTTGAGCCCGTCGTCTCTCATGATATGGAGACCAAGGTTATCACCTGGGG |
| CDS:non-structural p | 160 | V A V E P V V F S D M E T K V I T W G |
| CDS:polyprotein [Hep Query | 989 | D T A A C G D I I L G L P V S A R R G |
| | 3307 | ACACCGCGGGCGTGTGGGACATCATCTGGGCCCTGCCGTCTCCGCCCGCAGGGGG |
| Sbjct | 2351 | ACACCGCGGGCGTGTGGGACATCATCTGGGCCCTGCCGTCTCCGCCCGCAGGGGG |
| CDS:non-structural p | 180 | D T A A C G D I I L G L P V S A R R G |
| CDS:polyprotein [Hep Query | 1009 | E I H L G P A D S L E G Q G W R L L A |
| | 3367 | AGATACATCTGGGACCGGCAGACAGCCTTGAAGGGCAGGGTGGCAGCTCCTCGCG |
| Sbjct | 2411 | AGATACATCTGGGACCGGCAGACAGCCTTGAAGGGCAGGGTGGCAGCTCCTCGCG |
| CDS:non-structural p | 200 | E I H L G P A D S L E G Q G W R L L A |
| CDS:polyprotein [Hep Query | 1029 | I T A Y S Q Q T R G L L G C I I T S L |
| | 3427 | TTACGGCCTACTCCAAACAGACGCGAGGCCTACTTGGCTGCATCATCACTAGCCTC |
| Sbjct | 2471 | TTACGGCCTACTCCAAACAGACGCGAGGCCTACTTGGCTGCATCATCACTAGCCTC |

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| CDS:non-structural p | 220 | I T A Y S Q Q T R G L L G C I I T S L |
| CDS:polyprotein [Hep Query | 1049 | G R D R N Q V E G E V Q V V V S T A T Q |
| | 3487 | GCCGGGACAGGAACCAGGTCGAGGGGGAGGTCCAAGTGGTCTCCACCGCAACACAA |
| Sbjct | 2531 | |
| CDS:non-structural p | 240 | GCCGGGACAGGAACCAGGTCGAGGGGGAGGTCCAAGTGGTCTCCACCGCAACACAA |
| G R D R N Q V E G E V Q V V V S T A T Q | | |
| CDS:polyprotein [Hep Query | 1069 | F L A T C V N G V C W T V Y H G A G S |
| | 3547 | TCCTGGGCACCTGCGTCAATGGCGTGTGTTGACTGTCTATCATGGTGCCGGCTCA |
| Sbjct | 2591 | |
| CDS:non-structural p | 260 | TCCTGGGCACCTGCGTCAATGGCGTGTGTTGACTGTCTATCATGGTGCCGGCTCA |
| F L A T C V N G V C W T V Y H G A G S | | |
| CDS:polyprotein [Hep Query | 1089 | T L A G P K G P I T Q M Y T N V D Q D |
| | 3607 | CCCTTGCCGGCCCAAAGGGCCCAATCACCAAATGTACACCAATGTGGACCAGGAC |
| Sbjct | 2651 | |
| CDS:non-structural p | 280 | CCCTTGCCGGCCCAAAGGGCCCAATCACCAAATGTACACCAATGTGGACCAGGAC |
| T L A G P K G P I T Q M Y T N V D Q D | | |
| CDS:polyprotein [Hep Query | 1109 | V G W Q A P P G A R S L T P C T C G S |
| | 3667 | TCGGCTGGCAAGCGCCCCCGGGCGCGTCCCTGACACCATGCACCTGCGGCAGC |
| Sbjct | 2711 | |
| CDS:non-structural p | 300 | TCGGCTGGCAAGCGCCCCCGGGCGCGTCCCTGACACCATGCACCTGCGGCAGC |
| V G W Q A P P G A R S L T P C T C G S | | |
| CDS:polyprotein [Hep Query | 1129 | D L Y L V T R H A D V I P V R R R G D |
| | 3727 | ACCTTTACTTGGTCACGAGGCATGCCGATGTCATTCCGGTGCGCCGGCGGGCGAC |
| Sbjct | 2771 | |
| CDS:non-structural p | 320 | ACCTTTACTTGGTCACGAGGCATGCCGATGTCATTCCGGTGCGCCGGCGGGCGAC |
| D L Y L V T R H A D V I P V R R R G D | | |
| CDS:polyprotein [Hep Query | 1149 | R G S L L S P R P V S Y L K G S S G G |
| | 3787 | GGGGGAGCCTACTCTCCCCCAGGCCGTCTCTACTTGAAGGGCTCTCGGGCGGT |
| Sbjct | 2831 | |
| CDS:non-structural p | 340 | GGGGGAGCCTACTCTCCCCCAGGCCGTCTCTACTTGAAGGGCTCTCGGGCGGT |
| R G S L L S P R P V S Y L K G S S G G | | |
| CDS:polyprotein [Hep Query | 1169 | L L C P S G H A V G I F R A A V C T R |
| | 3847 | TGCTCTGCCCTCGGGCACGCTGTGGCATCTTCGGCTGCCGTGTGCACCCGA |
| Sbjct | 2891 | |
| CDS:non-structural p | 360 | TGCTCTGCCCTCGGGCACGCTGTGGCATCTTCGGCTGCCGTGTGCACCCGA |
| L L C P S G H A V G I F R A A V C T R | | |
| CDS:polyprotein [Hep Query | 1189 | V A K A V D F V P V E S M E T T M R S |
| | 3907 | TTGCGAAGGCGGTGGACTTGTACCCGTCGAGTCTATGGAAACCACATGCGGTCC |
| Sbjct | 2951 | |
| CDS:non-structural p | 380 | TTGCGAAGGCGGTGGACTTGTACCCGTCGAGTCTATGGAAACCACATGCGGTCC |
| V A K A V D F V P V E S M E T T M R S | | |
| CDS:polyprotein [Hep Query | 1209 | V F T D N S S P P A V P Q T F Q V A H |
| | 3967 | TCTTCACGGACAACCTCGTCCCCCTCCGGCGTACCGCAGACATTCCAGGTGGCCCAT |
| Sbjct | 3011 | |
| CDS:non-structural p | 400 | TCTTCACGGACAACCTCGTCCCCCTCCGGCGTACCGCAGACATTCCAGGTGGCCCAT |
| V F T D N S S P P A V P Q T F Q V A H | | |
| CDS:polyprotein [Hep Query | 1229 | H A P T G S G K S T K V P A A Y A A Q |
| | 4027 | ACGCCCCCTACTGGTAGCGGCAAGAGCACTAAGGTGCCGGCTGCGTATGCAGCCCAA |
| Sbjct | 3071 | |
| ACGCCCCCTACTGGTAGCGGCAAGAGCACTAAGGTGCCGGCTGCGTATGCAGCCCAA | | |

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| CDS:non-structural p | 420 | H A P T G S G K S T K V P A A Y A A Q |
| CDS:polyprotein [Hep Query | 1249 | Y K V L V L N P S V A A T L G F G A Y |
| | 4087 | ATAAGGTGCTTGTCCCTGAACCCGTCGCCGACCCCTAGGTTCGGGCGTAT |
| Sbjct | 3131 | ATAAGGTGCTTGTCCCTGAACCCGTCGCCGACCCCTAGGTTCGGGCGTAT |
| CDS:non-structural p | 440 | Y K V L V L N P S V A A T L G F G A Y |
| CDS:polyprotein [Hep Query | 1269 | S K A H G I D P N I R T G V R T I T T |
| | 4147 | CTAAGGCACATGGTATCGACCCTAACATCAGAACCGGGTAAGGACCATCACCACG |
| Sbjct | 3191 | CTAAGGCACATGGTATCGACCCTAACATCAGAACCGGGTAAGGACCATCACCACG |
| CDS:non-structural p | 460 | S K A H G I D P N I R T G V R T I T T |
| CDS:polyprotein [Hep Query | 1289 | A P I T Y S T Y G K F L A D D G G C S G |
| | 4207 | CCCCCATCACGTACTCCACCTATGGCAAGTTCTTGCACGGTGGTTGCTCTGGG |
| Sbjct | 3251 | CCCCCATCACGTACTCCACCTATGGCAAGTTCTTGCACGGTGGTTGCTCTGGG |
| CDS:non-structural p | 480 | A P I T Y S T Y G K F L A D D G G C S G |
| CDS:polyprotein [Hep Query | 1309 | A Y D I I I C D E C H S T D S T T I L |
| | 4267 | CCTATGACATCATAATATGTGATGAGTGCCACTCAACTGACTCGACCACTATCCTG |
| Sbjct | 3311 | CCTATGACATCATAATATGTGATGAGTGCCACTCAACTGACTCGACCACTATCCTG |
| CDS:non-structural p | 500 | A Y D I I I C D E C H S T D S T T I L |
| CDS:polyprotein [Hep Query | 1329 | I G T V L D Q A E T A G A R L V V L A |
| | 4327 | TCGGCACAGTCCCTGGACCAAGCGGAGACGGCTGGAGCGCGACTCGCTGCTCGCC |
| Sbjct | 3371 | TCGGCACAGTCCCTGGACCAAGCGGAGACGGCTGGAGCGCGACTCGCTGCTCGCC |
| CDS:non-structural p | 520 | I G T V L D Q A E T A G A R L V V L A |
| CDS:polyprotein [Hep Query | 1349 | A T P P G S V T V P H P N I E E V A L |
| | 4387 | CTACGCCTCCGGGATCGGTACCGTGCCACATCCAAACATCGAGGAGGTGGCTCTG |
| Sbjct | 3431 | CTACGCCTCCGGGATCGGTACCGTGCCACATCCAAACATCGAGGAGGTGGCTCTG |
| CDS:non-structural p | 540 | A T P P G S V T V P H P N I E E V A L |
| CDS:polyprotein [Hep Query | 1369 | S T G E I P F Y G K A I P I E T I K G |
| | 4447 | GCACTGGAGAAATCCCCTTTATGGCAAAGCCATCCCCATCGAGACCATCAAGGGG |
| Sbjct | 3491 | GCACTGGAGAAATCCCCTTTATGGCAAAGCCATCCCCATCGAGACCATCAAGGGG |
| CDS:non-structural p | 560 | S T G E I P F Y G K A I P I E T I K G |
| CDS:polyprotein [Hep Query | 1389 | R H L I F C H S K K K C D E L A A K L |
| | 4507 | GGCACCTCATTCTGCCATTCCAAGAAAGAAATGTGATGAGCTCGCCGCGAAGCTG |
| Sbjct | 3551 | GGCACCTCATTCTGCCATTCCAAGAAAGAAATGTGATGAGCTCGCCGCGAAGCTG |
| CDS:non-structural p | 580 | R H L I F C H S K K K C D E L A A K L |
| CDS:polyprotein [Hep Query | 1409 | G L G L N A V A Y Y R G L D V S V I P |
| | 4567 | GCCTCGGACTCAATGCTGTAGCATATTACCGGGGCTTGATGTATCCGTACATACCA |
| Sbjct | 3611 | GCCTCGGACTCAATGCTGTAGCATATTACCGGGGCTTGATGTATCCGTACATACCA |
| CDS:non-structural p | 600 | G L G L N A V A Y Y R G L D V S V I P |
| CDS:polyprotein [Hep Query | 1429 | S G D V I V V A T D A L M T G F T G D |
| | 4627 | GCGGAGACGTATTGTCGTAGCAACGGACGCTCTAATGACGGGCTTACCGGCAT |
| Sbjct | 3671 | GCGGAGACGTATTGTCGTAGCAACGGACGCTCTAATGACGGGCTTACCGGCAT |

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| CDS:non-structural p | 620 | S G D V I V V A T D A L M T G F T G D |
| CDS:polyprotein [Hep Query | 1449 | D S V I D C N T C V T Q T V D F S L D |
| | 4687 | ACTCAGTGATCGACTGCAATACATGTGTCACCCAGACAGTCGACTTCAGCTGGAC |
| Sbjct | 3731 | |
| CDS:non-structural p | 640 | D S V I D C N T C V T Q T V D F S L D |
| CDS:polyprotein [Hep Query | 1469 | T F T I E T T V P Q D A V S R S Q R |
| | 4747 | CCTTCACCATTGAGACGACGCCGACAGCAGTCGACTTCAGCTCGCAGCGG |
| Sbjct | 3791 | |
| CDS:non-structural p | 660 | T F T I E T T V P Q D A V S R S Q R |
| CDS:polyprotein [Hep Query | 1489 | G R T G R G R M G I Y R F V T P G E R |
| | 4807 | GCAGGACTGGTAGGGGCAGGATGGCATTACAGGTTGTGACTCCAGGAGAACGG |
| Sbjct | 3851 | |
| CDS:non-structural p | 680 | G R T G R G R M G I Y R F V T P G E R |
| CDS:polyprotein [Hep Query | 1509 | S G M F D S S V L C E C Y D A G C A W |
| | 4867 | CGGGCATGTTGATTCCTCGGTTCTGTGCGAGTGTCTATGACGCGGGCTGTGCTTGG |
| Sbjct | 3911 | |
| CDS:non-structural p | 700 | S G M F D S S V L C E C Y D A G C A W |
| CDS:polyprotein [Hep Query | 1529 | E L T P A E T S V R L R A Y L N T P G |
| | 4927 | AGCTCACGCCCGCCGAGACCTCAGTTAGGTTGCGGGCTTACCTAAACACACCAGGG |
| Sbjct | 3971 | |
| CDS:non-structural p | 720 | E L T P A E T S V R L R A Y L N T P G |
| CDS:polyprotein [Hep Query | 1549 | P V C Q D H L E F W E S V F T G L T H |
| | 4987 | CCGTCTGCCAGGACCCTCTGGAGTTCTGGGAGAGCGTCTTACAGGCCTCACCCAC |
| Sbjct | 4031 | |
| CDS:non-structural p | 740 | P V C Q D H L E F W E S V F T G L T H |
| CDS:polyprotein [Hep Query | 1569 | D A H F L S Q T K Q A G D N F P Y L V |
| | 5047 | ACGCCCATTCCTGTCCCAGACTAACAGCAGGAGAACAACTCCCTACCTGGTA |
| Sbjct | 4091 | |
| CDS:non-structural p | 760 | D A H F L S Q T K Q A G D N F P Y L V |
| CDS:polyprotein [Hep Query | 1589 | Y Q A T V C A R A Q A P P P S W D Q M |
| | 5107 | ACCAGGCTACGGTGTGCCAGGGCTCAGGCTCCACCTCCATGTGGGACCAAATG |
| Sbjct | 4151 | |
| CDS:non-structural p | 780 | ACCAGGCTACGGTGTGCCAGGGCTCAGGCTCCACCTCCATGTGGGACCAAATG |
| Y Q A T V C A R A Q A P P P S W D Q M | | |
| CDS:polyprotein [Hep Query | 1609 | K C L I R L K P T L H G P T P L L Y R |
| | 5167 | AGTGTCTCATACGGCTAAAGCCTACGCTGCACGGGCAACGCCCTGCTGTATAGG |
| Sbjct | 4211 | |
| CDS:non-structural p | 800 | AGTGTCTCATACGGCTAAAGCCTACGCTGCACGGGCAACGCCCTGCTGTATAGG |
| K C L I R L K P T L H G P T P L L Y R | | |
| CDS:polyprotein [Hep Query | 1629 | G A V Q N E V T T H P I T K Y I M A |
| | 5227 | GAGCCGTTCAAAACGAGGTTACTACCACACACCCATAACCAAATACATCATGGCA |
| Sbjct | 4271 | |
| | | GAGCCGTTCAAAACGAGGTTACTACCACACACCCATAACCAAATACATCATGGCA |

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| CDS:non-structural p | 820 | G A V Q N E V T T T H P I T K Y I M A |
| CDS:polyprotein [Hep Query | 1649 | M S A D L E V V T S T W V L V G G V L |
| | 5287 | TGTCGGCTGACCTGGAGGTCGTCACGAGCACCTGGTGCCTGGTAGGCAGTCCTA |
| Sbjct | 4331 | |
| CDS:non-structural p | 840 | M S A D L E V V T S T W V L V G G V L |
| CDS:polyprotein [Hep Query | 1669 | A L A A Y C L T T G S V V I V G R I I |
| | 5347 | CTCTGGCCGCGTATTGCCTGACAACAGGCAGCGTGGTCATTGTGGCAGGATCATC |
| Sbjct | 4391 | |
| CDS:non-structural p | 860 | A L A A Y C L T T G S V V I V G R I I |
| CDS:polyprotein [Hep Query | 1689 | S G K P A I I P D R E V L Y R E F D E |
| | 5407 | CCGGAAAGCCGGCATCATTCCCACAGGGAGTCCTTACCGGGAGTCGATGAG |
| Sbjct | 4451 | |
| CDS:non-structural p | 880 | S G K P A I I P D R E V L Y R E F D E |
| CDS:polyprotein [Hep Query | 1709 | E E C A S H L P Y I E Q G M Q L A E Q |
| | 5467 | AAGAGTGCCTCACACCTCCCTACATCGAACAGGAATGCAGCTGCCAACAA |
| Sbjct | 4511 | |
| CDS:non-structural p | 900 | E E C A S H L P Y I E Q G M Q L A E Q |
| CDS:polyprotein [Hep Query | 1729 | K Q K A I G L L Q T A T K Q A E A A A |
| | 5527 | AACAGAAGGCAATCGGGTTGCTGCAAACAGCCACCAAGCAAGCGGAGGCTGCTGCT |
| Sbjct | 4571 | |
| CDS:non-structural p | 920 | K Q K A I G L L Q T A T K Q A E A A A |
| CDS:polyprotein [Hep Query | 1749 | V V E S K W R T L E A F W A K H M W N |
| | 5587 | TGGTGGAAATCCAAGTGGCGGACCTCGAACGCTCTGGCGAACATATGTGGAAT |
| Sbjct | 4631 | |
| CDS:non-structural p | 940 | V V E S K W R T L E A F W A K H M W N |
| CDS:polyprotein [Hep Query | 1769 | I S G I Q Y L A G L S T L P G N P A I |
| | 5647 | TCAGCGGGATAACAATTAGCAGGCTTGTCCACTCTGCCTGGAACCCCGCGATA |
| Sbjct | 4691 | |
| CDS:non-structural p | 960 | I S G I Q Y L A G L S T L P G N P A I |
| CDS:polyprotein [Hep Query | 1789 | S L M A F T A S I T S P L T T Q H T L |
| | 5707 | CACTGATGGCATTACAGCCTCTATCACCAAGCCGCTCACCAACATACCCCTC |
| Sbjct | 4751 | |
| CDS:non-structural p | 980 | S L M A F T A S I T S P L T T Q H T L |
| CDS:polyprotein [Hep Query | 1809 | F N I L G G W V A A Q L A P P S A A S |
| | 5767 | TTAACATCCTGGGGGATGGGTGGCGCCAACTTGCTCCTCCAGCGCTGCTTCT |
| Sbjct | 4811 | |
| CDS:non-structural p | 1000 | F N I L G G W V A A Q L A P P S A A S |
| CDS:polyprotein [Hep Query | 1829 | F V G A G I A G A A V G S I G L G K V |
| | 5827 | TCGTAGGCGCCGGCATCGCTGGAGCGGCTGTTGGCAGCATAGGCCTGGAAAGGTG |
| Sbjct | 4871 | |

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| CDS:non-structural p | 1020 | F V G A G I A G A A V G S I G L G K V |
| CDS:polyprotein [Hep Query | 1849 | V D I L A G Y G A G V A G A L V A F K |
| | 5887 | TGGATATTTGGCAGGTTATGGAGCAGGGGTGGCAGGCCGCTCGTGGCCTTAAG |
| Sbjct | 4931 | |
| CDS:non-structural p | 1040 | V D I L A G Y G A G V A G A L V A F K |
| CDS:polyprotein [Hep Query | 1869 | M S G E M P S T E D L V N L L P A I L |
| | 5947 | TGAGCGCGAGATGCCCTCCACCGAGGACCTGGTAACTACTCCCTGCTATCCTC |
| Sbjct | 4991 | |
| CDS:non-structural p | 1060 | M S G E M P S T E D L V N L L P A I L |
| CDS:polyprotein [Hep Query | 1889 | P G A L V V G V V C A A I L R R H V G |
| | 6007 | CTGGCGCCCTAGTCGTGGGTCTGTGCGCAGCGATACTCGTCTGGCACGTGGC |
| Sbjct | 5051 | |
| CDS:non-structural p | 1080 | P G A L V V G V V C A A I L R R H V G |
| CDS:polyprotein [Hep Query | 1909 | G E G A V Q W M N R L I A F A S R G N |
| | 6067 | GGGAGGGGGCTGTGCAGTGGATGAACCGGCTGATAGCGTTGCTCGCGGGTAAC |
| Sbjct | 5111 | |
| CDS:non-structural p | 1100 | G E G A V Q W M N R L I A F A S R G N |
| CDS:polyprotein [Hep Query | 1929 | V S P T H Y V P E S D A A A R V T Q I |
| | 6127 | TCTCCCCCACGCACTATGTGCCTGAGAGCGACGCTGCAGCACGTGCACTCAGATC |
| Sbjct | 5171 | |
| CDS:non-structural p | 1120 | V S P T H Y V P E S D A A A R V T Q I |
| CDS:polyprotein [Hep Query | 1949 | S S L T I T Q L L K R L H Q W I N E D |
| | 6187 | CTAGTCTTACCATCACTCAGCTGCTGAAGAGGCTTCACCAAGTGGATCAACGAGGAC |
| Sbjct | 5231 | |
| CDS:non-structural p | 1140 | S S L T I T Q L L K R L H Q W I N E D |
| CDS:polyprotein [Hep Query | 1969 | S T P C S G S W L R D V W D W I C T V |
| | 6247 | CCACGCCATGCTCCGGCTCGTGGCTAACAGATGTTGGATTGGATATGCACGGTG |
| Sbjct | 5291 | |
| CDS:non-structural p | 1160 | S T P C S G S W L R D V W D W I C T V |
| CDS:polyprotein [Hep Query | 1989 | T D F K T W L Q S K L L P R L P G V P |
| | 6307 | CTGATTCAAGACCTGGCTCCAGTCCAAGCTCCTGCCCGATTGCCGGAGTCCCC |
| Sbjct | 5351 | |
| CDS:non-structural p | 1180 | T D F K T W L Q S K L L P R L P G V P |
| CDS:polyprotein [Hep Query | 2009 | F S C Q R G Y K G V W R G D G I M Q T |
| | 6367 | TCTCATGTCAACGTGGTACAAGGGAGTCTGGCGGGCGACGGCATCATGCAAACC |
| Sbjct | 5411 | |
| CDS:non-structural p | 1200 | F S C Q R G Y K G V W R G D G I M Q T |
| CDS:polyprotein [Hep Query | 2029 | C P C G A Q I T G H V K N G S M R I V |
| | 6427 | GCCCATGTGGAGCACAGATCACCGGACATGTGAAAAACGGTCCATGAGGATCGTG |
| Sbjct | 5471 | |

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| CDS:non-structural p | 1220 | C P C G A Q I T G H V K N G S M R I V |
| CDS:polyprotein [Hep Query | 2049 | P R T C S N T W H G T F P I N A Y T T |
| | 6487 | CTAGGACCTGTAGTAACACGTGGCATGGAACATTCCCCATTAAACCGTACACCAACG |
| Sbjct | 5531 | CTAGGACCTGTAGTAACACGTGGCATGGAACATTCCCCATTAAACCGTACACCAACG |
| CDS:non-structural p | 1240 | P R T C S N T W H G T F P I N A Y T T |
| CDS:polyprotein [Hep Query | 2069 | P C T P S P A P N Y S R A L W R V A A |
| | 6547 | CCTGCACGCCCTCCCCGGCGCAAATTATTCTAGGGCGCTGTGGGGGTGGCTGCT |
| Sbjct | 5591 | CCTGCACGCCCTCCCCGGCGCAAATTATTCTAGGGCGCTGTGGGGGTGGCTGCT |
| CDS:non-structural p | 1260 | P C T P S P A P N Y S R A L W R V A A |
| CDS:polyprotein [Hep Query | 2089 | E Y V E V T R V G D F H Y V T G M T T |
| | 6607 | AGTACGTGGAGGTTACGCGGGTGGGGATTCCACTACGTGACGGCATGACCACT |
| Sbjct | 5651 | AGTACGTGGAGGTTACGCGGGTGGGGATTCCACTACGTGACGGCATGACCACT |
| CDS:non-structural p | 1280 | E Y V E V T R V G D F H Y V T G M T T |
| CDS:polyprotein [Hep Query | 2109 | N V K C P C Q V P A P E F F T E V D G |
| | 6667 | ACGTAAAGTGCCGTGTCAAGGTTCCGGCCCCGAATTCTTCACAGAAAGTGGATGGG |
| Sbjct | 5711 | ACGTAAAGTGCCGTGTCAAGGTTCCGGCCCCGAATTCTTCACAGAAAGTGGATGGG |
| CDS:non-structural p | 1300 | N V K C P C Q V P A P E F F T E V D G |
| CDS:polyprotein [Hep Query | 2129 | R L H R Y A P A C K P L L R E E V T F |
| | 6727 | GGTTGCACAGGTACGCTCCAGCGTGCAAACCCCTCCTACGGGAGGAGTCACATT |
| Sbjct | 5771 | GGTTGCACAGGTACGCTCCAGCGTGCAAACCCCTCCTACGGGAGGAGTCACATT |
| CDS:non-structural p | 1320 | R L H R Y A P A C K P L L R E E V T F |
| CDS:polyprotein [Hep Query | 2149 | V G L N Q Y L V G S Q L P C E P E P D |
| | 6787 | TCGGGCTCAATCAATACCTGGTGGGTACAGCTCCATGCGAGCCCGAACCGGAC |
| Sbjct | 5831 | TCGGGCTCAATCAATACCTGGTGGGTACAGCTCCATGCGAGCCCGAACCGGAC |
| CDS:non-structural p | 1340 | V G L N Q Y L V G S Q L P C E P E P D |
| CDS:polyprotein [Hep Query | 2169 | A V L T S M L T D P S H I T A E T A K |
| | 6847 | CAGTGCTCACTTCCATGCTCACCGACCCCTCCCACATTACGGCGGAGACGGCTAAG |
| Sbjct | 5891 | CAGTGCTCACTTCCATGCTCACCGACCCCTCCCACATTACGGCGGAGACGGCTAAG |
| CDS:non-structural p | 1360 | A V L T S M L T D P S H I T A E T A K |
| CDS:polyprotein [Hep Query | 2189 | R L A R G S P P S L A S S S A S Q L S |
| | 6907 | GGCTGGCCAGGGGATCTCCCCCTCCTGGCCAGCTCATCAGCTAGCCAGCTGTCT |
| Sbjct | 5951 | GGCTGGCCAGGGGATCTCCCCCTCCTGGCCAGCTCATCAGCTAGCCAGCTGTCT |
| CDS:non-structural p | 1380 | R L A R G S P P S L A S S S A S Q L S |
| CDS:polyprotein [Hep Query | 2209 | P S L K A T C T T R H D S P D A D L I |
| | 6967 | CTTCCTTGAAGGCAACATGCACTACCCGTATGACTCCCCGGACGCTGACCTCATC |
| Sbjct | 6011 | CTTCCTTGAAGGCAACATGCACTACCCGTATGACTCCCCGGACGCTGACCTCATC |
| CDS:non-structural p | 1400 | P S L K A T C T T R H D S P D A D L I |
| CDS:polyprotein [Hep Query | 2229 | A N L L W R Q E M G G N I T R V E S E |
| | 7027 | CCAACCTCCTGTGGCGGCAGGAGATGGCGGGAACATCACCCGCGTGGAGTCAGAA |
| Sbjct | 6071 | CCAACCTCCTGTGGCGGCAGGAGATGGCGGGAACATCACCCGCGTGGAGTCAGAA |

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| CDS:non-structural p | 1420 | A N L L W R Q E M G G N I T R V E S E |
| CDS:polyprotein [Hep Query | 2249 | K V V I L D S F E P L Q A E E D E R E |
| | 7087 | AGGTAGTAATTGGACTCTTCGAGCCGCTCCAAGCGGAGGAGGATGAGAGGGAA |
| Sbjct | 6131 | AGGTAGTAATTGGACTCTTCGAGCCGCTCCAAGCGGAGGAGGATGAGAGGGAA |
| CDS:non-structural p | 1440 | K V V I L D S F E P L Q A E E D E R E |
| CDS:polyprotein [Hep Query | 2269 | S V P A E I L R R S R K F P R A M P I |
| | 7147 | CCGTTCCGGCGGAGATCCTGCGGAGGTCCAGGAAATTCCCTCGAGCGATGCCATA |
| Sbjct | 6191 | CCGTTCCGGCGGAGATCCTGCGGAGGTCCAGGAAATTCCCTCGAGCGATGCCATA |
| CDS:non-structural p | 1460 | S V P A E I L R R S R K F P R A M P I |
| CDS:polyprotein [Hep Query | 2289 | A R P D Y N P P L L E S W K D P D Y V |
| | 7207 | CACGCCCGGATTACAACCCCTCCACTGTTAGAGTCCTGGAAGGACCCGGACTACGTC |
| Sbjct | 6251 | CACGCCCGGATTACAACCCCTCCACTGTTAGAGTCCTGGAAGGACCCGGACTACGTC |
| CDS:non-structural p | 1480 | A R P D Y N P P L L E S W K D P D Y V |
| CDS:polyprotein [Hep Query | 2309 | P V V H G C P L P P A K A P P P I P P P |
| | 7267 | CAGTGGTACACGGGTGTCCATTGCCGCTGCCAAGGCCCTCCGATACCACCTCCA |
| Sbjct | 6311 | CAGTGGTACACGGGTGTCCATTGCCGCTGCCAAGGCCCTCCGATACCACCTCCA |
| CDS:non-structural p | 1500 | P V V H G C P L P P A K A P P P I P P P |
| CDS:polyprotein [Hep Query | 2329 | R K R T V V L S E S T V S S A L A E L |
| | 7327 | GGAAGAGGACGGTTGTCCCTGTCAGAATCTACCGTGTCTCTGCCTGGCGAGCTC |
| Sbjct | 6371 | GGAAGAGGACGGTTGTCCCTGTCAGAATCTACCGTGTCTCTGCCTGGCGAGCTC |
| CDS:non-structural p | 1520 | R K R T V V L S E S T V S S A L A E L |
| CDS:polyprotein [Hep Query | 2349 | T K T F G S S E S S A V D S G T A T A |
| | 7387 | CAAAGACCTCGGCAGCTCCGAATCGCGGCCGTCGACAGCGGCACGGCAACGGCC |
| Sbjct | 6431 | CAAAGACCTCGGCAGCTCCGAATCGCGGCCGTCGACAGCGGCACGGCAACGGCC |
| CDS:non-structural p | 1540 | T K T F G S S E S S A V D S G T A T A |
| CDS:polyprotein [Hep Query | 2369 | P D Q P S D D G D A G S D V E S Y S S |
| | 7447 | CTGACCAGCCCTCCGACGACGGCGACGCCGGATCCGACGTTGAGTCGTACTCCTCC |
| Sbjct | 6491 | CTGACCAGCCCTCCGACGACGGCGACGCCGGATCCGACGTTGAGTCGTACTCCTCC |
| CDS:non-structural p | 1560 | P D Q P S D D G D A G S D V E S Y S S |
| CDS:polyprotein [Hep Query | 2389 | P P L E G E P G D P D L S D G S W S T |
| | 7507 | CCCCCTTGAGGGGGAGCCGGGGATCCGATCTCAGCGACGGGTCTGGTCTACC |
| Sbjct | 6551 | CCCCCTTGAGGGGGAGCCGGGGATCCGATCTCAGCGACGGGTCTGGTCTACC |
| CDS:non-structural p | 1580 | P P L E G E P G D P D L S D G S W S T |
| CDS:polyprotein [Hep Query | 2409 | S E E A S E D V V C C S M S Y T W T G |
| | 7567 | GCGAGGAGGCTAGTGAGGACGTCGCTGCTGCTCGATGTCCTACACATGGACAGGC |
| Sbjct | 6611 | GCGAGGAGGCTAGTGAGGACGTCGCTGCTGCTCGATGTCCTACACATGGACAGGC |
| CDS:non-structural p | 1600 | S E E A S E D V V C C S M S Y T W T G |
| CDS:polyprotein [Hep Query | 2429 | L I T P C A A E E T K L P I N A L S N |
| | 7627 | TGATCACGCCATGCGCTGCGGAGGAAACCAAGCTGCCATCAATGCACTGAGCAAC |
| Sbjct | 6671 | TGATCACGCCATGCGCTGCGGAGGAAACCAAGCTGCCATCAATGCACTGAGCAAC |

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| CDS:non-structural p | 1620 | L I T P C A A E E T K L P I N A L S N |
| CDS:polyprotein [Hep Query | 2449 | L L R H H N L V Y A T T S R S A S L R |
| | 7687 | TGCTCCGTACCAACAACTTGGTCTATGCTACAAACATCTCGCAGCGCAAGCCTGCGG |
| Sbjct | 6731 | TGCTCCGTACCAACAACTTGGTCTATGCTACAAACATCTCGCAGCGCAAGCCTGCGG |
| CDS:non-structural p | 1640 | L L R H H N L V Y A T T S R S A S L R |
| CDS:polyprotein [Hep Query | 2469 | K K V T F D R L Q V L D D D H Y R D V L |
| | 7747 | AGAAGGTACACCTTGACAGACTGCAGGTCTGGACGACCACTACCGGGACGTGCTC |
| Sbjct | 6791 | AGAAGGTACACCTTGACAGACTGCAGGTCTGGACGACCACTACCGGGACGTGCTC |
| CDS:non-structural p | 1660 | K K V T F D R L Q V L D D D H Y R D V L |
| CDS:polyprotein [Hep Query | 2489 | E M K A K A S T V K A K L L S V E E A |
| | 7807 | AGATGAAGGCCAAGGCCTCCACAGTTAAGGCTAAACCTCTATCCGGGAGGAAGCC |
| Sbjct | 6851 | AGATGAAGGCCAAGGCCTCCACAGTTAAGGCTAAACCTCTATCCGGGAGGAAGCC |
| CDS:non-structural p | 1680 | E M K A K A S T V K A K L L S V E E A |
| CDS:polyprotein [Hep Query | 2509 | K L T P P H S A R S K F G Y G A K D V |
| | 7867 | AGCTGACGCCACATTGGCCAGATCTAAATTGGCTATGGGAAAGGACGTC |
| Sbjct | 6911 | AGCTGACGCCACATTGGCCAGATCTAAATTGGCTATGGGAAAGGACGTC |
| CDS:non-structural p | 1700 | K L T P P H S A R S K F G Y G A K D V |
| CDS:polyprotein [Hep Query | 2529 | N L S S K A V N H I R S V W K D L L E |
| | 7927 | ACCTATCCAGCAAGGCCGTTAACACATCCGCTCCGTGGAAAGGACTTGCTGGAA |
| Sbjct | 6971 | ACCTATCCAGCAAGGCCGTTAACACATCCGCTCCGTGGAAAGGACTTGCTGGAA |
| CDS:non-structural p | 1720 | N L S S K A V N H I R S V W K D L L E |
| CDS:polyprotein [Hep Query | 2549 | T E T P I D T T I M A K N E V F C V Q |
| | 7987 | CTGAGACACCAATTGACACCACATGGCAAAAAATGAGGTTTCTGCGTCCAA |
| Sbjct | 7031 | CTGAGACACCAATTGACACCACATGGCAAAAAATGAGGTTTCTGCGTCCAA |
| CDS:non-structural p | 1740 | T E T P I D T T I M A K N E V F C V Q |
| CDS:polyprotein [Hep Query | 2569 | E K G G R K P A R L I V F P D L G V R |
| | 8047 | AGAAGGGGGCCGCAAGCCAGCTGCCCTATCGTATTCCAGATTGGGGTCGT |
| Sbjct | 7091 | AGAAGGGGGCCGCAAGCCAGCTGCCCTATCGTATTCCAGATTGGGGTCGT |
| CDS:non-structural p | 1760 | E K G G R K P A R L I V F P D L G V R |
| CDS:polyprotein [Hep Query | 2589 | C E K M A L Y D V V S T L P Q A V M G |
| | 8107 | GCGAGAAAATGGCCCTTACGATGTGGCTCCACCCCTCCCTCAGGCCGTGATGGC |
| Sbjct | 7151 | GCGAGAAAATGGCCCTTACGATGTGGCTCCACCCCTCCCTCAGGCCGTGATGGC |
| CDS:non-structural p | 1780 | C E K M A L Y D V V S T L P Q A V M G |
| CDS:polyprotein [Hep Query | 2609 | S Y G F Q Y S P G Q R V E F L V N A W |
| | 8167 | CATACGGATTCCAATACTCTCCTGGACAGCGGGTCGAGTCCTGGTAATGCCTGG |
| Sbjct | 7211 | CATACGGATTCCAATACTCTCCTGGACAGCGGGTCGAGTCCTGGTAATGCCTGG |
| CDS:non-structural p | 1800 | S Y G F Q Y S P G Q R V E F L V N A W |
| CDS:polyprotein [Hep Query | 2629 | A K K C P M G F A Y D T R C F D S T V |
| | 8227 | CGAAGAAAATGCCCTATGGGCTTCGCATATGACACCCGCTGTTTGAECTCAACGGTC |
| Sbjct | 7271 | CGAAGAAAATGCCCTATGGGCTTCGCATATGACACCCGCTGTTTGAECTCAACGGTC |

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| CDS:non-structural p | 1820 | A K K C P M G F A Y D T R C F D S T V |
| CDS:polyprotein [Hep Query | 2649 | E N D I R V E E S I Y Q C C D L A P E |
| | 8287 | AGAATGACATCCGTGTTGAGGAGTCATCTACCAATGTTGTGACTTGGCCCCGAA |
| Sbjct | 7331 | AGAATGACATCCGTGTTGAGGAGTCATCTACCAATGTTGTGACTTGGCCCCGAA |
| CDS:non-structural p | 1840 | E N D I R V E E S I Y Q C C D L A P E |
| CDS:polyprotein [Hep Query | 2669 | R Q A I R S L T E R L Y I G G P L T N |
| | 8347 | GACAGGCCATAAGGTGCGTCACAGAGCGGCTTACATGGGGGCCCCCTGACTAAT |
| Sbjct | 7391 | GACAGGCCATAAGGTGCGTCACAGAGCGGCTTACATGGGGGCCCCCTGACTAAT |
| CDS:non-structural p | 1860 | R Q A I R S L T E R L Y I G G P L T N |
| CDS:polyprotein [Hep Query | 2689 | K G Q N C G Y R R C R A S G V L T T S |
| | 8407 | AAGGGCAGAACTGCGGCTATGCCGGTGCCGCGAGCGGTGTACTGACGACCAGC |
| Sbjct | 7451 | AAGGGCAGAACTGCGGCTATGCCGGTGCCGCGAGCGGTGTACTGACGACCAGC |
| CDS:non-structural p | 1880 | K G Q N C G Y R R C R A S G V L T T S |
| CDS:polyprotein [Hep Query | 2709 | G N T L T C Y L K A A A A C R A A K L |
| | 8467 | GTAATACCTCACATGTTACTTGAAGGCCGCTGCCGCTGTCGAGCTGCGAAGCTC |
| Sbjct | 7511 | GTAATACCTCACATGTTACTTGAAGGCCGCTGCCGCTGTCGAGCTGCGAAGCTC |
| CDS:non-structural p | 1900 | G N T L T C Y L K A A A A C R A A K L |
| CDS:polyprotein [Hep Query | 2729 | D C T M L V C G D D L V V I C E S A G |
| | 8527 | ACTGCACGATGCTCGTATGCCGGAGACGACCTTGTGTTATCTGTGAAAGCGGGGG |
| Sbjct | 7571 | ACTGCACGATGCTCGTATGCCGGAGACGACCTTGTGTTATCTGTGAAAGCGGGGG |
| CDS:non-structural p | 1920 | D C T M L V C G D D L V V I C E S A G |
| CDS:polyprotein [Hep Query | 2749 | Q E D E A S L R A F T E A M T R Y S A |
| | 8587 | AAGAGGACGAGGCAGCCCTACGGCCTTCACGGAGGCTATGACTAGATACTCTGCC |
| Sbjct | 7631 | AAGAGGACGAGGCAGCCCTACGGCCTTCACGGAGGCTATGACTAGATACTCTGCC |
| CDS:non-structural p | 1940 | Q E D E A S L R A F T E A M T R Y S A |
| CDS:polyprotein [Hep Query | 2769 | P G D P P K P E Y D L E L I T S C S S |
| | 8647 | CTGGGGACCCGCCAAACCAAGAAATACGACTTGGAGTTGATAACATCATGCTCCCTCC |
| Sbjct | 7691 | CTGGGGACCCGCCAAACCAAGAAATACGACTTGGAGTTGATAACATCATGCTCCCTCC |
| CDS:non-structural p | 1960 | P G D P P K P E Y D L E L I T S C S S |
| CDS:polyprotein [Hep Query | 2789 | V S V A H D A S G K R V Y Y L T R D P |
| | 8707 | TGTCAGTCGCGCACGATGCATCTGGCAAAAGGGTGTACTATCTCACCCGTGACCCC |
| Sbjct | 7751 | TGTCAGTCGCGCACGATGCATCTGGCAAAAGGGTGTACTATCTCACCCGTGACCCC |
| CDS:non-structural p | 1980 | V S V A H D A S G K R V Y Y L T R D P |
| CDS:polyprotein [Hep Query | 2809 | T P L A R A A W E T A R H T P V N S W |
| | 8767 | CCCCCCTTGCAGCGGGCTGCCTGGAGACAGCTAGACACACTCCAGTCAATTCTGG |
| Sbjct | 7811 | CCCCCCTTGCAGCGGGCTGCCTGGAGACAGCTAGACACACTCCAGTCAATTCTGG |
| CDS:non-structural p | 2000 | T P L A R A A W E T A R H T P V N S W |
| CDS:polyprotein [Hep Query | 2829 | G N I I M Y A P T L W A R M I L M T H |
| | 8827 | GCAACATCATCATGTATGCCGCCACCTTGTGGCAAGGATGATCCTGATGACTCAT |
| Sbjct | 7871 | GCAACATCATCATGTATGCCGCCACCTTGTGGCAAGGATGATCCTGATGACTCAT |

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| CDS:non-structural p | 2020 | G N I I M Y A P T L W A R M I L M T H |
| CDS:polyprotein [Hep Query | 2849 | F S I L L A Q E Q L E K A L D C Q I Y |
| | 8887 | TCTCCATCCTCTAGCTAGGAACAACTTGAAAAAGCCCTAGATTGTCAGATCTAC |
| Sbjct | 7931 | |
| CDS:non-structural p | 2040 | F S I L L A Q E Q L E K A L D C Q I Y |
| CDS:polyprotein [Hep Query | 2869 | A C Y S I E P L D L P Q I I Q R L H G |
| | 8947 | CCTGTTACTCCATTGAGGCCACTTGACCTACCTCAGATCATTCAACGACTCCATGGC |
| Sbjct | 7991 | |
| CDS:non-structural p | 2060 | A C Y S I E P L D L P Q I I Q R L H G |
| CDS:polyprotein [Hep Query | 2889 | S A F S L H S Y S P G E I N R V A S C |
| | 9007 | GCGCATTTCACTCCATAGTTACTCTCAGGTGAGATCAATAGGGTGGCTTCATGC |
| Sbjct | 8051 | |
| CDS:non-structural p | 2080 | S A F S L H S Y S P G E I N R V A S C |
| CDS:polyprotein [Hep Query | 2909 | R K L G V P P L R V W R H R A R S V R |
| | 9067 | GGAAACTTGGGTACCGCCCTTGCGAGTCTGGAGACATCGGCCAGAAGTGTCCGC |
| Sbjct | 8111 | |
| CDS:non-structural p | 2100 | R K L G V P P L R V W R H R A R S V R |
| CDS:polyprotein [Hep Query | 2929 | R L L S Q G G R A A T C G K Y L F N W |
| | 9127 | GGCTACTGTCCCAGGGGGGGAGGGCTGCCACTTGTGGCAAGTACCTCTTCAACTGG |
| Sbjct | 8171 | |
| CDS:non-structural p | 2120 | R L L S Q G G R A A T C G K Y L F N W |
| CDS:polyprotein [Hep Query | 2949 | V R T K L K L T P I P A A S Q L D L S |
| | 9187 | TAAGGACCAAGCTCAAACACTCCAAATCCGGTGCCTCCAGTTGGATTATCC |
| Sbjct | 8231 | |
| CDS:non-structural p | 2140 | V R T K L K L T P I P A A S Q L D L S |
| CDS:polyprotein [Hep Query | 2969 | W F V A G Y S G G D I Y H S L S R A R |
| | 9247 | GGTCGTTGCTGGTTACAGCGGGGAGACATATATCACAGCCTGTCGTGCCGA |
| Sbjct | 8291 | |
| CDS:non-structural p | 2160 | W F V A G Y S G G D I Y H S L S R A R |
| CDS:polyprotein [Hep Query | 2989 | R W F M W C L L L S V G V G I Y L L |
| | 9307 | GCTGGTTCATGTGGTGCCTACTCCTACTTCTGTAGGGTAGGCATCTATCTACTC |
| Sbjct | 8351 | |
| CDS:non-structural p | 2180 | R W F M W C L L L S V G V G I Y L L |
| CDS:polyprotein [Hep Query | 3009 | N R |
| | 9367 | ACCGATGAACGGGGAGCTAACACTCCAGGCCAATAGGCCATCCTG 9412 |
| Sbjct | 8411 | |
| CDS:non-structural p | 2200 | ACCGATGAACGGGGAGCTAACACTCCAGGCCAATAGGCCATCCTG 8456 |



Score = 719 bits (374), Expect = 0.0
Identities = 388/388 (100%), Gaps = 0/388 (0%)
Strand=Plus/Plus

| | | |
|----------------------|-----|---|
| Query | 2 | CCAGCCCCGATTGGGGCGACACTCCACCATAGATCACTCCCTGTGAGGAAC |
| Sbjct | 2 | CCAGCCCCGATTGGGGCGACACTCCACCATAGATCACTCCCTGTGAGGAAC |
| Query | 62 | CTTCACGCAGAAAGCGTCTAGCCATGGCGTTAGTATGAGTGTCTGCAGCCTCCAGG |
| Sbjct | 62 | CTTCACGCAGAAAGCGTCTAGCCATGGCGTTAGTATGAGTGTCTGCAGCCTCCAGG |
| Query | 122 | CCCCCTCCCGGGAGAGCCATAGTGGTCTGCAGAACCGGTGAGTACACCGGAATTGCC |
| Sbjct | 122 | CCCCCTCCCGGGAGAGCCATAGTGGTCTGCAGAACCGGTGAGTACACCGGAATTGCC |
| Query | 182 | ACGACCGGGTCCTTCTTGGATCAACCCGCTCAATGCCTGGAGATTGGCGTGCCC |
| Sbjct | 182 | ACGACCGGGTCCTTCTTGGATCAACCCGCTCAATGCCTGGAGATTGGCGTGCCC |
| Query | 242 | CGAGACTGCTAGCCGAGTAGTGTGGTCTCGCAAAGGCCCTGGTACTGCCTGATA |
| Sbjct | 242 | CGAGACTGCTAGCCGAGTAGTGTGGTCTCGCAAAGGCCCTGGTACTGCCTGATA |
| CDS:polyprotein [Hep | 1 | M S T N P K |
| Query | 302 | TGCTTGCGAGTGCCCCGGGAGGTCTCGTAGACCGTGCACCATGAGCACGAATCCTAA |
| Sbjct | 302 | TGCTTGCGAGTGCCCCGGGAGGTCTCGTAGACCGTGCACCATGAGCACGAATCCTAA |
| CDS:core-neo fusion | 1 | M S T N P K |
| CDS:polyprotein [Hep | 8 | Q R K T K R N T N |
| Query | 362 | TCAAAGAAAAACCAAACGTAACACCAAC 389 |
| Sbjct | 362 | TCAAAGAAAAACCAAACGTAACACCAAC 389 |
| CDS:core-neo fusion | 8 | Q R K T K R N T N |

Score = 189 bits (98), Expect = 2e-43
Identities = 98/98 (100%), Gaps = 0/98 (0%)
Strand=Plus/Plus

CPU time: 0.16 user secs. 0.04 sys. secs 0.20 total secs.

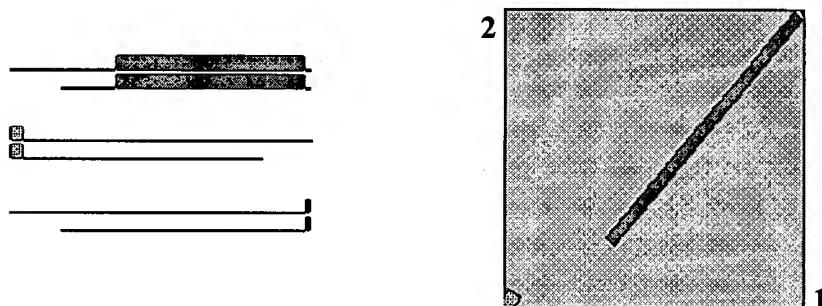
BLAST 2 SEQUENCES RESULTS VERSION BLASTN 2.2.17 [Aug-26-2007]

Match: 1 Mismatch: -2 gap open: 5 gap extension: 2

x_dropoff: 0 expect: 10.0000 wordsize: 11 Filter View option StandardMasking character option X for protein, n for nucleotide Masking color option Black Show CDS translation Align

Sequence 1: gi|5420376|Hepatitis C virus type 1b complete genome, isolate Con1
 Length = 9604 (1 .. 9605)

Sequence 2: gi|5441834|Hepatitis C virus replicon I377/NS3-3'UTR
 Length = 7988 (1 .. 7989)



NOTE: Bitscore and expect value are calculated based on the size of the nr database.

NOTE: If protein translation is reversed, please repeat the search with reverse strand of the query sequence.

Score = 1.142e+04 bits (5937), Expect = 0.0
 Identities = 5993/5993 (100%), Gaps = 0/5993 (0%)
 Strand=Plus/Plus

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|----------------------|------|--|
| CDS:polyprotein [Hep | 1027 | A P I T A Y S Q Q T R G L L G C I I T |
| Query | 3420 | GCGCCTATTACGGCCTACTCCAAACAGACGCGAGGCCTACTTGGCTGCATCATCAC |
| | | |
| Sbjct | 1804 | GCGCCTATTACGGCCTACTCCAAACAGACGCGAGGCCTACTTGGCTGCATCATCAC |
| CDS:non-structural p | 2 | A P I T A Y S Q Q T R G L L G C I I T |
| CDS:polyprotein [Hep | 1047 | L T G R D R N Q V E G E V Q V V S T A |
| Query | 3480 | CTCACAGGCCGGGACAGGAACCAGGTCGAGGGGGAGGTCCAAGTGGTCTCCACCGC |
| | | |
| Sbjct | 1864 | CTCACAGGCCGGGACAGGAACCAGGTCGAGGGGGAGGTCCAAGTGGTCTCCACCGC |

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| CDS:non-structural p | 22 | L T G R D R N Q V E G E V Q V V S T A |
| CDS:polyprotein [Hep Query | 1067 | Q S F L A T C V N G V C W T V Y H G A |
| | 3540 | CAATCTTCCTGGCGACCTGCGTCAATGGCGTGTGTTGGACTGTCTATCATGGTGC |
| Sbjct | 1924 | CAATCTTCCTGGCGACCTGCGTCAATGGCGTGTGTTGGACTGTCTATCATGGTGC |
| CDS:non-structural p | 42 | Q S F L A T C V N G V C W T V Y H G A |
| CDS:polyprotein [Hep Query | 1087 | S K T L A G P K G P I T Q M Y T N V D |
| | 3600 | TCAAAGACCCTTGCCGGCCAAAGGGCCAATCACCAAATGTACACCAATGTGGA |
| Sbjct | 1984 | TCAAAGACCCTTGCCGGCCAAAGGGCCAATCACCAAATGTACACCAATGTGGA |
| CDS:non-structural p | 62 | S K T L A G P K G P I T Q M Y T N V D |
| CDS:polyprotein [Hep Query | 1107 | D L V G W Q A P P G A R S L T P C T C |
| | 3660 | GACCTCGTCGGCTGGCAAGCGCCCCCCCAGGGCGCGTCTTGACACCATGCACCTG |
| Sbjct | 2044 | GACCTCGTCGGCTGGCAAGCGCCCCCCCAGGGCGCGTCTTGACACCATGCACCTG |
| CDS:non-structural p | 82 | D L V G W Q A P P G A R S L T P C T C |
| CDS:polyprotein [Hep Query | 1127 | S S D L Y L V T R H A D V I P V R R R |
| | 3720 | AGCTCGGACCTTACTTGGTCACGAGGCATGCCATGTCTCCGGTGCGCCGGCG |
| Sbjct | 2104 | AGCTCGGACCTTACTTGGTCACGAGGCATGCCATGTCTCCGGTGCGCCGGCG |
| CDS:non-structural p | 102 | S S D L Y L V T R H A D V I P V R R R |
| CDS:polyprotein [Hep Query | 1147 | D S R G S L L S P R P V S Y L K G S S |
| | 3780 | GACAGCAGGGGGAGCCTACTCTCCCCCAGGCCGTCTCTACTTGAAGGGCTCTCG |
| Sbjct | 2164 | GACAGCAGGGGGAGCCTACTCTCCCCCAGGCCGTCTCTACTTGAAGGGCTCTTC |
| CDS:non-structural p | 122 | D S R G S L L S P R P V S Y L K G S S |
| CDS:polyprotein [Hep Query | 1167 | G P L L C P S G H A V G I F R A A V C |
| | 3840 | GGTCCACTGCTCTGCCCTCGGGCACGCTGTGGGCATCTTCGGGCTGCCGTGTG |
| Sbjct | 2224 | GGTCCACTGCTCTGCCCTCGGGCACGCTGTGGGCATCTTCGGGCTGCCGTGTG |
| CDS:non-structural p | 142 | G P L L C P S G H A V G I F R A A V C |
| CDS:polyprotein [Hep Query | 1187 | R G V A K A V D F V P V E S M E T T M |
| | 3900 | CGAGGGGTTGCGAAGGCGGTGGACTTGTACCCGTCGAGTCTATGGAAACCACTAT |
| Sbjct | 2284 | CGAGGGGTTGCGAAGGCGGTGGACTTGTACCCGTCGAGTCTATGGAAACCACTAT |
| CDS:non-structural p | 162 | R G V A K A V D F V P V E S M E T T M |
| CDS:polyprotein [Hep Query | 1207 | S P V F T D N S S P P A V P Q T F Q V |
| | 3960 | TCCCCGGTCTTCACGGACAACCTCGTCCCCCTCCGGCGTACCGCAGACATTCCAGGT |
| Sbjct | 2344 | TCCCCGGTCTTCACGGACAACCTCGTCCCCCTCCGGCGTACCGCAGACATTCCAGGT |
| CDS:non-structural p | 182 | S P V F T D N S S P P A V P Q T F Q V |
| CDS:polyprotein [Hep Query | 1227 | H L H A P T G S G K S T K V P A A Y A |
| | 4020 | CATCTACACGCCCTACTGGTAGCGGCAAGAGCACTAAGGTGCCGGCTCGTATGC |
| Sbjct | 2404 | CATCTACACGCCCTACTGGTAGCGGCAAGAGCACTAAGGTGCCGGCTCGTATGC |
| CDS:non-structural p | 202 | H L H A P T G S G K S T K V P A A Y A |
| CDS:polyprotein [Hep Query | 1247 | Q G Y K V L V L N P S V A A T L G F G |
| | 4080 | CAAGGGTATAAGGTGCTTGTCCCTGAACCGTCCGTGCCGCCACCTAGGTTCGG |
| Sbjct | 2464 | CAAGGGTATAAGGTGCTTGTCCCTGAACCGTCCGTGCCGCCACCTAGGTTCGG |

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| CDS:non-structural p | 222 | Q G Y K V L V L N P S V A A T L G F G |
| CDS:polyprotein [Hep Query | 1267 | Y M S K A H G I D P N I R T G V R T I |
| | 4140 | TATATGTCTAACGGCACATGGTATCGACCTAACATCAGAACCGGGGTAAGGACCAT |
| Sbjct | 2524 | |
| CDS:non-structural p | 242 | TATATGTCTAACGGCACATGGTATCGACCTAACATCAGAACCGGGGTAAGGACCAT |
| | | Y M S K A H G I D P N I R T G V R T I |
| CDS:polyprotein [Hep Query | 1287 | T G A P I T Y S T Y G K F L A D G G C |
| | 4200 | ACGGGTGCCCATCACGTACTCCACCTATGCCAAGTTCTGCCGACGGTGGTTG |
| Sbjct | 2584 | |
| CDS:non-structural p | 262 | ACGGGTGCCCATCACGTACTCCACCTATGCCAAGTTCTGCCGACGGTGGTTG |
| | | T G A P I T Y S T Y G K F L A D G G C |
| CDS:polyprotein [Hep Query | 1307 | G G A Y D I I I C D E C H S T D S T T |
| | 4260 | GGGGCGCCTATGACATCATAATATGTGATGAGTGCCACTCAACTGACTCGACCAC |
| Sbjct | 2644 | |
| CDS:non-structural p | 282 | GGGGCGCCTATGACATCATAATATGTGATGAGTGCCACTCAACTGACTCGACCAC |
| | | G G A Y D I I I C D E C H S T D S T T |
| CDS:polyprotein [Hep Query | 1327 | L G I G T V L D Q A E T A G A R L V V |
| | 4320 | CTGGGCATCGGCACAGTCCTGGACCAAGCGGAGACGGCTGGAGCGCGACTCGTCGT |
| Sbjct | 2704 | |
| CDS:non-structural p | 302 | CTGGGCATCGGCACAGTCCTGGACCAAGCGGAGACGGCTGGAGCGCGACTCGTCGT |
| | | L G I G T V L D Q A E T A G A R L V V |
| CDS:polyprotein [Hep Query | 1347 | A T A T P P G S V T V P H P N I E E V |
| | 4380 | GCCACCGCTACGCCTCCGGGATCGGTACCGTGCCACATCCAAACATCGAGGAGGT |
| Sbjct | 2764 | |
| CDS:non-structural p | 322 | GCCACCGCTACGCCTCCGGGATCGGTACCGTGCCACATCCAAACATCGAGGAGGT |
| | | A T A T P P G S V T V P H P N I E E V |
| CDS:polyprotein [Hep Query | 1367 | L S S T G E I P F Y G K A I P I E T I |
| | 4440 | CTGTCCAGCACTGGAGAAATCCCCTTTATGCCAAAGCCATCCCCATCGAGACCAT |
| Sbjct | 2824 | |
| CDS:non-structural p | 342 | CTGTCCAGCACTGGAGAAATCCCCTTTATGCCAAAGCCATCCCCATCGAGACCAT |
| | | L S S T G E I P F Y G K A I P I E T I |
| CDS:polyprotein [Hep Query | 1387 | G G R H L I F C H S K K K C D E L A A |
| | 4500 | GGGGGGAGGCACCTCATTCTGCCATTCCAAGAAGAAATGTGATGAGCTGCCGC |
| Sbjct | 2884 | |
| CDS:non-structural p | 362 | GGGGGGAGGCACCTCATTCTGCCATTCCAAGAAGAAATGTGATGAGCTGCCGC |
| | | G G R H L I F C H S K K K C D E L A A |
| CDS:polyprotein [Hep Query | 1407 | L S G L G L N A V A Y Y R G L D V S V |
| | 4560 | CTGTCCGGCCTCGGACTCAATGCTGTAGCATATTACCGGGGCTTGATGTATCCGT |
| Sbjct | 2944 | |
| CDS:non-structural p | 382 | CTGTCCGGCCTCGGACTCAATGCTGTAGCATATTACCGGGGCTTGATGTATCCGT |
| | | L S G L G L N A V A Y Y R G L D V S V |
| CDS:polyprotein [Hep Query | 1427 | P T S G D V I V V A T D A L M T G F T |
| | 4620 | CCAACTAGCGGAGACGTATTGTCGTAGCAACGGACGCTCTAATGACGGGCTTAC |
| Sbjct | 3004 | |
| CDS:non-structural p | 402 | CCAACTAGCGGAGACGTATTGTCGTAGCAACGGACGCTCTAATGACGGGCTTAC |
| | | P T S G D V I V V A T D A L M T G F T |
| CDS:polyprotein [Hep Query | 1447 | D F D S V I D C N T C V T Q T V D F S |
| | 4680 | GATTCGACTCAGTGTGACTGCAATACATGTGTCACCCAGACAGTCGACTTCAG |
| Sbjct | 3064 | |
| | | GATTCGACTCAGTGTGACTGCAATACATGTGTCACCCAGACAGTCGACTTCAG |

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| CDS:non-structural p | 422 | D F D S V I D C N T C V T Q T V D F S |
| CDS:polyprotein [Hep Query | 1467 | D P T F T I E T T T V P Q D A V S R S |
| | 4740 | GACCCGACCTTCACCATTGAGACGACGACCCTGCCACAAGACGCGGTGTCACGCTC |
| Sbjct | 3124 | GACCCGACCTTCACCATTGAGACGACGACCCTGCCACAAGACGCGGTGTCACGCTC |
| CDS:non-structural p | 442 | D P T F T I E T T T V P Q D A V S R S |
| CDS:polyprotein [Hep Query | 1487 | R R G R T G R G R M G I Y R F V T P G |
| | 4800 | CGGGGAGGCAGGACTGGTAGGGGCAGGATGGCATTACAGGTTGTGACTCCAGG |
| Sbjct | 3184 | CGGGGAGGCAGGACTGGTAGGGGCAGGATGGCATTACAGGTTGTGACTCCAGG |
| CDS:non-structural p | 462 | R R G R T G R G R M G I Y R F V T P G |
| CDS:polyprotein [Hep Query | 1507 | R P S G M F D S S V L C E C Y D A G C |
| | 4860 | CGGCCCTCGGGCATGTTGATTCCCTCGGTTCTGTGCGAGTGCATGACGCGGGCTG |
| Sbjct | 3244 | CGGCCCTCGGGCATGTTGATTCCCTCGGTTCTGTGCGAGTGCATGACGCGGGCTG |
| CDS:non-structural p | 482 | R P S G M F D S S V L C E C Y D A G C |
| CDS:polyprotein [Hep Query | 1527 | W Y E L T P A E T S V R L R A Y L N T |
| | 4920 | TGGTACGAGCTCACGCCGCCGAGACCTCAGTTAGGTTGCGGGCTTACCTAAACAC |
| Sbjct | 3304 | TGGTACGAGCTCACGCCGCCGAGACCTCAGTTAGGTTGCGGGCTTACCTAAACAC |
| CDS:non-structural p | 502 | W Y E L T P A E T S V R L R A Y L N T |
| CDS:polyprotein [Hep Query | 1547 | G L P V C Q D H L E F W E S V F T G L |
| | 4980 | GGGTTGCCCGTCTGCCAGGACCATCTGGAGTTCTGGGAGAGCGTCTTACAGGCCT |
| Sbjct | 3364 | GGGTTGCCCGTCTGCCAGGACCATCTGGAGTTCTGGGAGAGCGTCTTACAGGCCT |
| CDS:non-structural p | 522 | G L P V C Q D H L E F W E S V F T G L |
| CDS:polyprotein [Hep Query | 1567 | H I D A H F L S Q T K Q A G D N F P Y |
| | 5040 | CACATAGACGCCATTCTTGTCCCAGACTAACGAGGAGACAACCTCCCTA |
| Sbjct | 3424 | CACATAGACGCCATTCTTGTCCCAGACTAACGAGGAGACAACCTCCCTA |
| CDS:non-structural p | 542 | H I D A H F L S Q T K Q A G D N F P Y |
| CDS:polyprotein [Hep Query | 1587 | V A Y Q A T V C A R A Q A P P P S W D |
| | 5100 | GTCAGCATACCAGGCTACGGTGTGCCAGGGCTCAGGCTCCACCTCCATCGGGGA |
| Sbjct | 3484 | GTCAGCATACCAGGCTACGGTGTGCCAGGGCTCAGGCTCCACCTCCATCGGGGA |
| CDS:non-structural p | 562 | V A Y Q A T V C A R A Q A P P P S W D |
| CDS:polyprotein [Hep Query | 1607 | M W K C L I R L K P T L H G P T P L L |
| | 5160 | ATGTGGAAGTGTCTCATACGGCTAAAGCCTACGCTGCACGGGCAACGCCCTGCT |
| Sbjct | 3544 | ATGTGGAAGTGTCTCATACGGCTAAAGCCTACGCTGCACGGGCAACGCCCTGCT |
| CDS:non-structural p | 582 | M W K C L I R L K P T L H G P T P L L |
| CDS:polyprotein [Hep Query | 1627 | R L G A V Q N E V T T T H P I T K Y I |
| | 5220 | AGGCTGGGAGCCGTTCAAAACGAGGTTACTACCACACACCCATAACCAAATACAT |
| Sbjct | 3604 | AGGCTGGGAGCCGTTCAAAACGAGGTTACTACCACACACCCATAACCAAATACAT |
| CDS:non-structural p | 602 | R L G A V Q N E V T T T H P I T K Y I |
| CDS:polyprotein [Hep Query | 1647 | A C M S A D L E V V T S T W V L V G G |
| | 5280 | GCATGCATGTCGGCTGACCTGGAGGTCGTACGAGCACCTGGGTGCTGGTAGGC |
| Sbjct | 3664 | GCATGCATGTCGGCTGACCTGGAGGTCGTACGAGCACCTGGGTGCTGGTAGGC |

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| CDS:non-structural p | 622 | A C M S A D L E V V T S T W V L V G G |
| CDS:polyprotein [Hep Query | 1667 | L A A L A A Y C L T T G S V V I V G R |
| | 5340 | CTAGCAGCTCTGGCCGCGTATTGCCTGACAACAGGCAGCGTGGTCATTGTGGCAG |
| Sbjct | 3724 | CTAGCAGCTCTGGCCGCGTATTGCCTGACAACAGGCAGCGTGGTCATTGTGGCAG |
| CDS:non-structural p | 642 | L A A L A A Y C L T T G S V V I V G R |
| CDS:polyprotein [Hep Query | 1687 | I L S G K P A I I P D R E V L Y R E F |
| | 5400 | ATCTTGTCCGGAAAGCCGCCATCATTCCGACAGGGAAGTCCTTACCGGGAGTT |
| Sbjct | 3784 | ATCTTGTCCGGAAAGCCGCCATCATTCCGACAGGGAAGTCCTTACCGGGAGTT |
| CDS:non-structural p | 662 | I L S G K P A I I P D R E V L Y R E F |
| CDS:polyprotein [Hep Query | 1707 | E M E E C A S H L P Y I E Q G M Q L A |
| | 5460 | GAGATGGAAGAGTGCACCTCACACCTCCCTACATCGAACAGGGAATGCAGCTCGC |
| Sbjct | 3844 | GAGATGGAAGAGTGCACCTCACACCTCCCTACATCGAACAGGGAATGCAGCTCGC |
| CDS:non-structural p | 682 | E M E E C A S H L P Y I E Q G M Q L A |
| CDS:polyprotein [Hep Query | 1727 | Q F K Q K A I G L L Q T A T K Q A E A |
| | 5520 | CAATTCAAACAGAAGGCAATCGGGTTGCTGCAAACAGCCACCAAGCAAGCGGAGGC |
| Sbjct | 3904 | CAATTCAAACAGAAGGCAATCGGGTTGCTGCAAACAGCCACCAAGCAAGCGGAGGC |
| CDS:non-structural p | 702 | Q F K Q K A I G L L Q T A T K Q A E A |
| CDS:polyprotein [Hep Query | 1747 | A P V V E S K W R T L E A F W A K H M |
| | 5580 | GCTCCCGTGGTGAATCCAAGTGGCGGACCCCTCGAACGCCTCTGGCGAACATAT |
| Sbjct | 3964 | GCTCCCGTGGTGAATCCAAGTGGCGGACCCCTCGAACGCCTCTGGCGAACATAT |
| CDS:non-structural p | 722 | A P V V E S K W R T L E A F W A K H M |
| CDS:polyprotein [Hep Query | 1767 | N F I S G I Q Y L A G L S T L P G N P |
| | 5640 | AATTTCATCAGCGGGATACAATATTAGCAGGCTTGTCCACTCTGCCTGGCAACCC |
| Sbjct | 4024 | AATTTCATCAGCGGGATACAATATTAGCAGGCTTGTCCACTCTGCCTGGCAACCC |
| CDS:non-structural p | 742 | N F I S G I Q Y L A G L S T L P G N P |
| CDS:polyprotein [Hep Query | 1787 | I A S L M A F T A S I T S P L T T Q H |
| | 5700 | ATAGCATCACTGATGGCATTACAGCCTCTATCACCAAGCCGCTCACCAACCAACA |
| Sbjct | 4084 | ATAGCATCACTGATGGCATTACAGCCTCTATCACCAAGCCGCTCACCAACCAACA |
| CDS:non-structural p | 762 | I A S L M A F T A S I T S P L T T Q H |
| CDS:polyprotein [Hep Query | 1807 | L L F N I L G G W V A A Q L A P P S A |
| | 5760 | CTCCTGTTAACATCCTGGGGGATGGGTGGCGCCAACTTGCTCCTCCCAGCGC |
| Sbjct | 4144 | CTCCTGTTAACATCCTGGGGGATGGGTGGCGCCAACTTGCTCCTCCCAGCGC |
| CDS:non-structural p | 782 | L L F N I L G G W V A A Q L A P P S A |
| CDS:polyprotein [Hep Query | 1827 | S A F V G A G I A G A A V G S I G L G |
| | 5820 | TCTGCTTCGTAGGCAGCCGGCATCGCTGGAGCGGCTGTTGGCAGCATAGGCCTTGG |
| Sbjct | 4204 | TCTGCTTCGTAGGCAGCCGGCATCGCTGGAGCGGCTGTTGGCAGCATAGGCCTTGG |
| CDS:non-structural p | 802 | S A F V G A G I A G A A V G S I G L G |
| CDS:polyprotein [Hep Query | 1847 | V L V D I L A G Y G A G V A G A L V A |
| | 5880 | GTGCTTGTGGATATTGGCAGGTTATGGAGCAGGGGTGGCAGGCGCCTCGTGGC |
| Sbjct | 4264 | GTGCTTGTGGATATTGGCAGGTTATGGAGCAGGGGTGGCAGGCGCCTCGTGGC |

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| CDS:non-structural p | 822 | V L V D I L A G Y G A G V A G A L V A |
| CDS:polyprotein [Hep Query | 1867 | K V M S G E M P S T E D L V N L L P A |
| | 5940 | AAGGTCATGAGCGGCAGATGCCCTCCACCGAGGACCTGGTTAACCTACTCCCTGC |
| Sbjct | 4324 | AAGGTCATGAGCGGCAGATGCCCTCCACCGAGGACCTGGTTAACCTACTCCCTGC |
| CDS:non-structural p | 842 | K V M S G E M P S T E D L V N L L P A |
| CDS:polyprotein [Hep Query | 1887 | L S P G A L V V G V V C A A I L R R H |
| | 6000 | CTCTCCCCTGGGCCCTAGTCGTGGGTCGTGCGCAGCGATACTGCGTCGGCA |
| Sbjct | 4384 | CTCTCCCCTGGGCCCTAGTCGTGGGTCGTGCGCAGCGATACTGCGTCGGCA |
| CDS:non-structural p | 862 | L S P G A L V V G V V C A A I L R R H |
| CDS:polyprotein [Hep Query | 1907 | G P G E G A V Q W M N R L I A F A S R |
| | 6060 | GGCCCAGGGAGGGGCTGTGCAGTGGATGAACCGGCTGATAGCGTTCGCTCGCG |
| Sbjct | 4444 | GGCCCAGGGAGGGGCTGTGCAGTGGATGAACCGGCTGATAGCGTTCGCTCGCG |
| CDS:non-structural p | 882 | G P G E G A V Q W M N R L I A F A S R |
| CDS:polyprotein [Hep Query | 1927 | N H V S P T H Y V P E S D A A A A R V T |
| | 6120 | AACCACGTCTCCCCACGCACTATGTGCCTGAGAGCGACGCTGCAGCACGTGTCAC |
| Sbjct | 4504 | AACCACGTCTCCCCACGCACTATGTGCCTGAGAGCGACGCTGCAGCACGTGTCAC |
| CDS:non-structural p | 902 | N H V S P T H Y V P E S D A A A A R V T |
| CDS:polyprotein [Hep Query | 1947 | I L S S L T I T Q L L K R L H Q W I N |
| | 6180 | ATCCTCTCTAGTCTTACCATCACTCAGCTGCTGAAGAGGCTTCACCAGTGGATCAA |
| Sbjct | 4564 | ATCCTCTCTAGTCTTACCATCACTCAGCTGCTGAAGAGGCTTCACCAGTGGATCAA |
| CDS:non-structural p | 922 | I L S S L T I T Q L L K R L H Q W I N |
| CDS:polyprotein [Hep Query | 1967 | D C S T P C S G S W L R D V W D W I C |
| | 6240 | GACTGCTCCACGCCATGCTCCGGCTCGTGGCTAAGAGATGTTGGGATTGGATATG |
| Sbjct | 4624 | GACTGCTCCACGCCATGCTCCGGCTCGTGGCTAAGAGATGTTGGGATTGGATATG |
| CDS:non-structural p | 942 | D C S T P C S G S W L R D V W D W I C |
| CDS:polyprotein [Hep Query | 1987 | V L T D F K T W L Q S K L L P R L P G |
| | 6300 | GTGTTGACTGATTCAAGACCTGGCTCCAGTCCAAGCTCCTGCCCGATTGCCGGG |
| Sbjct | 4684 | GTGTTGACTGATTCAAGACCTGGCTCCAGTCCAAGCTCCTGCCCGATTGCCGGG |
| CDS:non-structural p | 962 | V L T D F K T W L Q S K L L P R L P G |
| CDS:polyprotein [Hep Query | 2007 | P F F S C Q R G Y K G V W R G D G I M |
| | 6360 | CCCTCTTCTCATGTCAACGTGGTACAAGGGAGTCTGGCGGGCGACGGCATCAT |
| Sbjct | 4744 | CCCTCTTCTCATGTCAACGTGGTACAAGGGAGTCTGGCGGGCGACGGCATCAT |
| CDS:non-structural p | 982 | P F F S C Q R G Y K G V W R G D G I M |
| CDS:polyprotein [Hep Query | 2027 | T T C P C G A Q I T G H V K N G S M R |
| | 6420 | ACCACCTGCCATGTGGAGCACAGATCACCGGACATGTGAAAAACGGTTCCATGAG |
| Sbjct | 4804 | ACCACCTGCCATGTGGAGCACAGATCACCGGACATGTGAAAAACGGTTCCATGAG |
| CDS:non-structural p | 1002 | T T C P C G A Q I T G H V K N G S M R |
| CDS:polyprotein [Hep Query | 2047 | V G P R T C S N T W H G T F P I N A Y |
| | 6480 | GTGGGGCCTAGGACCTGTAGTAACACGTGGCATGGAACATTCCCCATTAACCGCGTA |
| Sbjct | 4864 | GTGGGGCCTAGGACCTGTAGTAACACGTGGCATGGAACATTCCCCATTAACCGCGTA |

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| CDS:non-structural p | 1022 | V G P R T C S N T W H G T F P I N A Y |
| CDS:polyprotein [Hep Query | 2067 | T G P C T P S P A P N Y S R A L W R V |
| | 6540 | ACGGGCCCCCTGCACGCCCTCCCGGCCAAATTATTCTAGGGCGCTGTGGCGGGT |
| Sbjct | 4924 | |
| CDS:non-structural p | 1042 | ACGGGCCCCCTGCACGCCCTCCCGGCCAAATTATTCTAGGGCGCTGTGGCGGGT |
| | T G P C T P S P A P N Y S R A L W R V | |
| CDS:polyprotein [Hep Query | 2087 | A E E Y V E V T R V G D F H Y V T G M |
| | 6600 | GCTGAGGAGTACGTGGAGGTTACGCCGGTGGGGATTCCACTACGTGACGGCAT |
| Sbjct | 4984 | |
| CDS:non-structural p | 1062 | GCTGAGGAGTACGTGGAGGTTACGCCGGTGGGGATTCCACTACGTGACGGCAT |
| | A E E Y V E V T R V G D F H Y V T G M | |
| CDS:polyprotein [Hep Query | 2107 | T D N V K C P C Q V P A P E F F T E V |
| | 6660 | ACTGACAACGTAAAGTGCCCGTGTCAAGGTTCCGGCCCCGAATTCTTCACAGAAGT |
| Sbjct | 5044 | |
| CDS:non-structural p | 1082 | ACTGACAACGTAAAGTGCCCGTGTCAAGGTTCCGGCCCCGAATTCTTCACAGAAGT |
| | T D N V K C P C Q V P A P E F F T E V | |
| CDS:polyprotein [Hep Query | 2127 | G V R L H R Y A P A C K P L L R E E V |
| | 6720 | GGGGTGCGGTTGCACAGGTACGCTCCAGCGTGCACGGGAGGAGGT |
| Sbjct | 5104 | |
| CDS:non-structural p | 1102 | GGGGTGCGGTTGCACAGGTACGCTCCAGCGTGCACGGGAGGAGGT |
| | G V R L H R Y A P A C K P L L R E E V | |
| CDS:polyprotein [Hep Query | 2147 | F L V G L N Q Y L V G S Q L P C E P E |
| | 6780 | TTCCCTGGTCGGGCTCAATCAATACCTGGTGGTCACAGCTCCCATGCGAGCCGA |
| Sbjct | 5164 | |
| CDS:non-structural p | 1122 | TTCCCTGGTCGGGCTCAATCAATACCTGGTGGTCACAGCTCCCATGCGAGCCGA |
| | F L V G L N Q Y L V G S Q L P C E P E | |
| CDS:polyprotein [Hep Query | 2167 | D V A V L T S M L T D P S H I T A E T |
| | 6840 | GACGTAGCAGTGCCTACTCCATGCTACCGGACCCCTCCACATTACGGCGGAGAC |
| Sbjct | 5224 | |
| CDS:non-structural p | 1142 | GACGTAGCAGTGCCTACTCCATGCTACCGGACCCCTCCACATTACGGCGGAGAC |
| | D V A V L T S M L T D P S H I T A E T | |
| CDS:polyprotein [Hep Query | 2187 | K R R L A R G S P P S L A S S S A S Q |
| | 6900 | AAGCGTAGGCTGGCCAGGGATCTCCCCCTCCTGGCCAGCTCATCAGCTAGCCA |
| Sbjct | 5284 | |
| CDS:non-structural p | 1162 | AAGCGTAGGCTGGCCAGGGATCTCCCCCTCCTGGCCAGCTCATCAGCTAGCCA |
| | K R R L A R G S P P S L A S S S A S Q | |
| CDS:polyprotein [Hep Query | 2207 | S A P S L K A T C T T R H D S P D A D |
| | 6960 | TCTGCGCCTCCTGAAGGCAACATGCACTACCCGTACAGACTCCCCGGACGCTGA |
| Sbjct | 5344 | |
| CDS:non-structural p | 1182 | TCTGCGCCTCCTGAAGGCAACATGCACTACCCGTACAGACTCCCCGGACGCTGA |
| | S A P S L K A T C T T R H D S P D A D | |
| CDS:polyprotein [Hep Query | 2227 | I E A N L L W R Q E M G G N I T R V E |
| | 7020 | ATCGAGGCCAACCTCCTGTGGCGGCAGGAGATGGCGGGAACATACCCGCGTGG |
| Sbjct | 5404 | |
| CDS:non-structural p | 1202 | ATCGAGGCCAACCTCCTGTGGCGGCAGGAGATGGCGGGAACATACCCGCGTGG |
| | I E A N L L W R Q E M G G N I T R V E | |
| CDS:polyprotein [Hep Query | 2247 | E N K V V I L D S F E P L Q A E E D E |
| | 7080 | GAAAATAAGGTAGTAATTGGACTCTTCGAGCCGCTCAAGCGGAGGAGGATGA |
| Sbjct | 5464 | |
| | GAAAATAAGGTAGTAATTGGACTCTTCGAGCCGCTCAAGCGGAGGAGGATGA | |

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| CDS:non-structural_P | 1222 | E N K V V I L D S E E P L Q A E E D E | Query | 7200 | ATATGGGCCACGCCGCACTTACACAACCTCCACACTGTTAGAAGTCCTGGAAAGAACCCGGA |
| CD:non-structural_P | 1242 | E V S V P A E I L R R S R K E P R A M | Query | 7140 | GAGGTATCCCGTTCCGGCGAGATTCCTGGCACTGTTAGAAGTCCTGGAAAGAACCCGGA |
| CD:non-structural_P | 1262 | I W A R P D Y N P P L L E S W K D P D | Query | 5584 | ATATGGGCCACGCCGCACTTACACAACCTCCACACTGTTAGAAGTCCTGGAAAGAACCCGGA |
| CD:non-structural_P | 1282 | V P P V V H G C P L P A K A P P I P | Query | 7260 | GTCCTCTCAGTACACGGCTACGCTGGTACATGCTCCATGGCCCTGGCACTGGATAC |
| CD:non-structural_P | 1302 | P R R K R T V V L S E S T V S S A L A | Query | 7327 | CACCGAGGAGAGACGGTCTCTGCTAGAATTCATACCTGCTCTCTGGCC |
| CD:non-structural_P | 1322 | L A T K T F G S S E S S A V D S G T A | Query | 5764 | CTGCCCAAGAACCTTCGGCCAGCTCATTGCTGGCCGCTGACGCAAGCC |
| CD:non-structural_P | 1342 | A S P D Q P S D D G D A G S D V E S Y | Query | 7440 | GCTCTCTGACCACTCCGAGACGGCTCCGAGATTCAGCTGGATCTG |
| CD:non-structural_P | 1362 | S M P P L E G E P G D P D L S D G S W | Query | 7500 | TCCATGCCGCCCTGGAGGGAGCCGGAGATCCGAGCTCCGAGCTGG |
| CD:non-structural_P | 1382 | T V S E E A S E D V V C C S M S Y T W | Query | 5944 | ACCGTAAAGCGAGGCTAGTGAAGACGCTCTGCTCTGCTAGCTACACATG |
| CD:non-structural_P | 1402 | G A L I T P C A A E E T K L P I N A L | Query | 6004 | GGCCGCCCTGACCACTGGCTGGAGAAAGAACCCGCAATGCACT |
| CD:non-structural_P | 1427 | N S L D R H H N L V Y A T T S R S A | Query | 7680 | ACCTCTTGCCTCCGGTACACCACTGGCTCTATGCTACACATCTGGACAG |
| CD:non-structural_P | 1447 | G A L I T P C A A E E T K L P I N A L | Query | 6064 | ACCTCTTGCCTCCGGTACACCACTGGCTCTATGCTACACATCTGGACAG |
| CD:non-structural_P | 1467 | E N K V V I L D S E E P L Q A E E D E | Query | 7620 | GGCCGCCCTGACCACTGGCTGGAGAAAGAACCCGCAATGCACT |
| CD:non-structural_P | 1487 | E N K V V I L D S E E P L Q A E E D E | Query | 2427 | GGCCGCCCTGACCACTGGCTGGAGAAAGAACCCGCAATGCACT |
| CD:non-structural_P | 1507 | T V S E E A S E D V V C C S M S Y T W | Query | 2447 | G A L I T P C A A E E T K L P I N A L |
| CD:non-structural_P | 1527 | S M P P L E G E P G D P D L S D G S W | Query | 2467 | N S L D R H H N L V Y A T T S R S A |
| CD:non-structural_P | 1547 | T V S E E A S E D V V C C S M S Y T W | Query | 2487 | G A L I T P C A A E E T K L P I N A L |
| CD:non-structural_P | 1567 | A S P D Q P S D D G D A G S D V E S Y | Query | 2507 | T V S E E A S E D V V C C S M S Y T W |
| CD:non-structural_P | 1587 | S M P P L E G E P G D P D L S D G S W | Query | 2527 | A S P D Q P S D D G D A G S D V E S Y |
| CD:non-structural_P | 1607 | T V S E E A S E D V V C C S M S Y T W | Query | 2547 | L A T K T F G S S E S S A V D S G T A |
| CD:non-structural_P | 1627 | S M P P L E G E P G D P D L S D G S W | Query | 2567 | A S P D Q P S D D G D A G S D V E S Y |
| CD:non-structural_P | 1647 | T C C A T G C C C C C T G A G G G A G C C G G A G C A T C C G A G C G A C G E T C T G | Subject | 7560 | ACCGTAAAGCGAGGAGCTAGTGAAGACGCTCTGCTCTGCTAGCTACACATG |
| CD:non-structural_P | 1667 | T C C A T G C C C C C T G A G G G A G C C G G A G C A T C C G A G C G A C G E T C T G | Subject | 5944 | ACCGTAAAGCGAGGAGCTAGTGAAGACGCTCTGCTCTGCTAGCTACACATG |
| CD:non-structural_P | 1687 | T C C A T G C C C C C T G A G G G A G C C G G A G C A T C C G A G C G A C G E T C T G | Subject | 6064 | ACCTCTTGCCTCCGGTACACCACTGGCTCTATGCTACACATCTGGACAG |

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| CDS:non-structural p | 1422 | N S L L R H H N L V Y A T T S R S A S |
| CDS:polyprotein [Hep Query | 2467 7740 | R Q K K V T F D R L Q V L D D H Y R D CGGCAGAAGAAGGTACCTTTGACAGACTGCAGGTCTGGACGACCACTACGGGA |
| Sbjct | 6124 | CGGCAGAAGAAGGTACCTTTGACAGACTGCAGGTCTGGACGACCACTACGGGA |
| CDS:non-structural p | 1442 | R Q K K V T F D R L Q V L D D H Y R D |
| CDS:polyprotein [Hep Query | 2487 7800 | L K E M K A K A S T V K A K L L S V E CTCAAGGAGATGAAGGCGAAGGCCTCACAGTTAAGGCTAAACTCTATCCGTGGA |
| Sbjct | 6184 | CTCAAGGAGATGAAGGCGAAGGCCTCACAGTTAAGGCTAAACTCTATCCGTGGA |
| CDS:non-structural p | 1462 | L K E M K A K A S T V K A K L L S V E |
| CDS:polyprotein [Hep Query | 2507 7860 | A C K L T P P H S A R S K F G Y G A K GCCTGTAAGCTGACGCCACATTGGCCAGATCTAAATTGGCTATGGGGAAA |
| Sbjct | 6244 | GCCTGTAAGCTGACGCCACATTGGCCAGATCTAAATTGGCTATGGGGAAA |
| CDS:non-structural p | 1482 | A C K L T P P H S A R S K F G Y G A K |
| CDS:polyprotein [Hep Query | 2527 7920 | V R N L S S K A V N H I R S V W K D L GTCCCGAACCTATCCAGCAAGGCCGTTAACCATCCGCTCCGTGTGAAAGGACTT |
| Sbjct | 6304 | GTCCCGAACCTATCCAGCAAGGCCGTTAACCATCCGCTCCGTGTGAAAGGACTT |
| CDS:non-structural p | 1502 | V R N L S S K A V N H I R S V W K D L |
| CDS:polyprotein [Hep Query | 2547 7980 | E D T E T P I D T T I M A K N E V F C GAAGACACTGAGACACCAATTGACACCACATGGCAAAAAATGAGGTTTCTG |
| Sbjct | 6364 | GAAGACACTGAGACACCAATTGACACCACATGGCAAAAAATGAGGTTTCTG |
| CDS:non-structural p | 1522 | E D T E T P I D T T I M A K N E V F C |
| CDS:polyprotein [Hep Query | 2567 8040 | Q P E K G G R K P A R L I V F P D L G CAACCAGAGAAGGGGGCCGCAAGCCAGCTCGCCTATCGTATTCCAGATTGGG |
| Sbjct | 6424 | CAACCAGAGAAGGGGGCCGCAAGCCAGCTCGCCTATCGTATTCCAGATTGGG |
| CDS:non-structural p | 1542 | Q P E K G G R K P A R L I V F P D L G |
| CDS:polyprotein [Hep Query | 2587 8100 | R V C E K M A L Y D V V S T L P Q A V CGTGTGTGCGAGAAAATGCCCTTACGATGTGGCTCCACCCCTCCCTCAGGCCGT |
| Sbjct | 6484 | CGTGTGTGCGAGAAAATGCCCTTACGATGTGGCTCCACCCCTCCCTCAGGCCGT |
| CDS:non-structural p | 1562 | R V C E K M A L Y D V V S T L P Q A V |
| CDS:polyprotein [Hep Query | 2607 8160 | G S S Y G F Q Y S P G Q R V E F L V N GGCTCTTCATACGGATTCCAATACTCTCCTGGACAGCGGGTCGAGTTCTGGTGA |
| Sbjct | 6544 | GGCTCTTCATACGGATTCCAATACTCTCCTGGACAGCGGGTCGAGTTCTGGTGA G S S Y G F Q Y S P G Q R V E F L V N |
| CDS:non-structural p | 1582 | |
| CDS:polyprotein [Hep Query | 2627 8220 | W K A K K C P M G F A Y D T R C F D S TGGAAAGCGAAGAAAATGCCCTATGGGCTCGCATATGACACCCGCTTTGACTC |
| Sbjct | 6604 | TGGAAAGCGAAGAAAATGCCCTATGGGCTCGCATATGACACCCGCTTTGACTC |
| CDS:non-structural p | 1602 | W K A K K C P M G F A Y D T R C F D S |
| CDS:polyprotein [Hep Query | 2647 8280 | V T E N D I R V E E S I Y Q C C D L A GTCACTGAGAATGACATCCGTGTTGAGGAGTCAATCTACCAATGTTGTGACTTGGC |
| Sbjct | 6664 | GTCACTGAGAATGACATCCGTGTTGAGGAGTCAATCTACCAATGTTGTGACTTGGC |

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| CDS:non-structural p | 1622 | V T E N D I R V E E S I Y Q C C D L A |
| CDS:polyprotein [Hep Query | 2667 | E A R Q A I R S L T E R L Y I G G P L |
| | 8340 | GAAGCCAGACAGGCCATAAGGTGCCTCACAGAGCGGCTTACATCGGGGGCCCCCT |
| Sbjct | 6724 | |
| CDS:non-structural p | 1642 | GAAGCCAGACAGGCCATAAGGTGCCTCACAGAGCGGCTTACATCGGGGGCCCCCT |
| | | E A R Q A I R S L T E R L Y I G G P L |
| CDS:polyprotein [Hep Query | 2687 | N S K G Q N C G Y R R C R A S G V L T |
| | 8400 | AATTCTAAAGGGCAGAACTGCCTGCCTGCCTGCGCGAGCGGTGTACTGAC |
| Sbjct | 6784 | |
| CDS:non-structural p | 1662 | AATTCTAAAGGGCAGAACTGCCTGCCTGCCTGCGCGAGCGGTGTACTGAC |
| | | N S K G Q N C G Y R R C R A S G V L T |
| CDS:polyprotein [Hep Query | 2707 | S C G N T L T C Y L K A A A A C R A A |
| | 8460 | AGCTCGGTAATACCTCACATGTTACTTGAAGGCCGTCGGCCTGTCGAGCTGC |
| Sbjct | 6844 | |
| CDS:non-structural p | 1682 | AGCTCGGTAATACCTCACATGTTACTTGAAGGCCGTCGGCCTGTCGAGCTGC |
| | | S C G N T L T C Y L K A A A A C R A A |
| CDS:polyprotein [Hep Query | 2727 | L Q D C T M L V C G D D L V V V I C E S |
| | 8520 | CTCCAGGACTGCACGATGCTCGTATGCGGAGACGACCTTGTCTGTTATCTGTGAAAG |
| Sbjct | 6904 | |
| CDS:non-structural p | 1702 | CTCCAGGACTGCACGATGCTCGTATGCGGAGACGACCTTGTCTGTTATCTGTGAAAG |
| | | L Q D C T M L V C G D D L V V V I C E S |
| CDS:polyprotein [Hep Query | 2747 | G T Q E D E A S L R A F T E A M T R Y |
| | 8580 | GGGACCCAAGAGGACGAGGCAGGCCCTACGGGCTTCACGGAGGCTATGACTAGATA |
| Sbjct | 6964 | |
| CDS:non-structural p | 1722 | GGGACCCAAGAGGACGAGGCAGGCCCTACGGGCTTCACGGAGGCTATGACTAGATA |
| | | G T Q E D E A S L R A F T E A M T R Y |
| CDS:polyprotein [Hep Query | 2767 | A P P G D P P K P E Y D L E L I T S C |
| | 8640 | GCCCCCCCCTGGGGACCCGCCAAACCAGAACATGACTGGAGTTGATAACATCATG |
| Sbjct | 7024 | |
| CDS:non-structural p | 1742 | GCCCCCCCCTGGGGACCCGCCAAACCAGAACATGACTGGAGTTGATAACATCATG |
| | | A P P G D P P K P E Y D L E L I T S C |
| CDS:polyprotein [Hep Query | 2787 | S N V S V A H D A S G K R V Y Y L T R |
| | 8700 | TCCAATGTGTCAGTCGCGCACGATGCATCTGGCAAAAGGGTGTACTATCTCACCCG |
| Sbjct | 7084 | |
| CDS:non-structural p | 1762 | TCCAATGTGTCAGTCGCGCACGATGCATCTGGCAAAAGGGTGTACTATCTCACCCG |
| | | S N V S V A H D A S G K R V Y Y L T R |
| CDS:polyprotein [Hep Query | 2807 | P T T P L A R A A W E T A R H T P V N |
| | 8760 | CCCAACCACCCCCCTGCGCGGGCTGCCTGGAGACAGCTAGACACACTCCAGTCAC |
| Sbjct | 7144 | |
| CDS:non-structural p | 1782 | CCCAACCACCCCCCTGCGCGGGCTGCCTGGAGACAGCTAGACACACTCCAGTCAC |
| | | P T T P L A R A A W E T A R H T P V N |
| CDS:polyprotein [Hep Query | 2827 | W L G N I I M Y A P T L W A R M I L M |
| | 8820 | TGGCTAGGCAACATCATCATGTATGCGCCACCTTGTGGCAAGGATGATCCTGAT |
| Sbjct | 7204 | |
| CDS:non-structural p | 1802 | TGGCTAGGCAACATCATCATGTATGCGCCACCTTGTGGCAAGGATGATCCTGAT |
| | | W L G N I I M Y A P T L W A R M I L M |
| CDS:polyprotein [Hep Query | 2847 | H F F S I L L A Q E Q L E K A L D C Q |
| | 8880 | CATTCTTCTCCATCCTCTAGCTCAGGAACAACTTGAAAAAGCCCTAGATTGTCA |
| Sbjct | 7264 | |
| | | CATTCTTCTCCATCCTCTAGCTCAGGAACAACTTGAAAAAGCCCTAGATTGTCA |

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| CDS:non-structural p | 1822 | H F F S I L L A Q E Q L E K A L D C Q |
| CDS:polyprotein [Hep Query | 2867 8940 | Y G A C Y S I E P L D L P Q I I Q R L TACGGGGCCTGTTACTCCATTGAGCCACTTGACCTACCTCAGATCATTCAACGACT |
| Sbjct | 7324 | TACGGGGCCTGTTACTCCATTGAGCCACTTGACCTACCTCAGATCATTCAACGACT |
| CDS:non-structural p | 1842 | Y G A C Y S I E P L D L P Q I I Q R L |
| CDS:polyprotein [Hep Query | 2887 9000 | G L S A F S L H S Y S P G E I N R V A GGCCTTAGCGCATTTCACTCCATAGTTACTCTCCAGGTGAGATCAATAGGGTGGC |
| Sbjct | 7384 | GGCCTTAGCGCATTTCACTCCATAGTTACTCTCCAGGTGAGATCAATAGGGTGGC |
| CDS:non-structural p | 1862 | G L S A F S L H S Y S P G E I N R V A |
| CDS:polyprotein [Hep Query | 2907 9060 | C L R K L G V P P L R V W R H R A R S TGCCTCAGGAAACTTGGGGTACCGCCCTTGCGAGTCTGGAGACATCGGGCCAGAAG |
| Sbjct | 7444 | TGCCTCAGGAAACTTGGGGTACCGCCCTTGCGAGTCTGGAGACATCGGGCCAGAAG |
| CDS:non-structural p | 1882 | C L R K L G V P P L R V W R H R A R S |
| CDS:polyprotein [Hep Query | 2927 9120 | R A R L L S Q G G R A A T C G K Y L F CGCGCTAGGCTACTGTCCCAGGGGGGAGGGCTGCCACTTGTGGCAAGTACCTCTT |
| Sbjct | 7504 | CGCGCTAGGCTACTGTCCCAGGGGGGAGGGCTGCCACTTGTGGCAAGTACCTCTT |
| CDS:non-structural p | 1902 | R A R L L S Q G G R A A T C G K Y L F |
| CDS:polyprotein [Hep Query | 2947 9180 | W A V R T K L K L T P I P A A S Q L D TGGGCAGTAAGGACCAAGCTCAAACACTCCAATCCCGCTCGTCCCAGTTGGA |
| Sbjct | 7564 | TGGGCAGTAAGGACCAAGCTCAAACACTCCAATCCCGCTCGTCCCAGTTGGA |
| CDS:non-structural p | 1922 | W A V R T K L K L T P I P A A S Q L D |
| CDS:polyprotein [Hep Query | 2967 9240 | S S W F V A G Y S G G D I Y H S L S R TCCAGCTGGTTCGTTGCTGGTTACAGCGGGGGAGACATATATCACAGCCTGTCG |
| Sbjct | 7624 | TCCAGCTGGTTCGTTGCTGGTTACAGCGGGGGAGACATATATCACAGCCTGTCG |
| CDS:non-structural p | 1942 | S S W F V A G Y S G G D I Y H S L S R |
| CDS:polyprotein [Hep Query | 2987 9300 | R P R W F M W C L L L S V G V G I Y CGACCCCGCTGGTCATGTGGTGCCTACTCCTACTTCTGTAGGGTAGGCATCTA |
| Sbjct | 7684 | CGACCCCGCTGGTCATGTGGTGCCTACTCCTACTTCTGTAGGGTAGGCATCTA |
| CDS:non-structural p | 1962 | R P R W F M W C L L L S V G V G I Y |
| CDS:polyprotein [Hep Query | 3007 9360 | L P N R CTCCCCAACGATGAACGGGGAGCTAAACACTCCAGGCCAATAGGCCATCCTG 9 |
| Sbjct | 7744 | CTCCCCAACGATGAACGGGGAGCTAAACACTCCAGGCCAATAGGCCATCCTG 7 |
| CDS:non-structural p | 1982 | L P N R |

Score = 696 bits (362), Expect = 0.0
 Identities = 376/376 (100%), Gaps = 0/376 (0%)
 Strand=Plus/Plus

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|----------------------|-----|--|-------------|
| Query | 2 | CCAGCCCCCGATTGGGGCGACACTCCACCATAGATCACTCCCTGTGAGGAAC | TAC |
| | | | |
| Sbjct | 2 | CCAGCCCCCGATTGGGGCGACACTCCACCATAGATCACTCCCTGTGAGGAAC | TAC |
| | | | |
| Query | 62 | CTTCACGCAGAAAGCGTCTAGCCATGGCGTTAGTATGAGTGTGTCGTGCAGC | CTCCAGG |
| | | | |
| Sbjct | 62 | CTTCACGCAGAAAGCGTCTAGCCATGGCGTTAGTATGAGTGTGTCGTGCAGC | CTCCAGG |
| | | | |
| Query | 122 | CCCCCTCCCAGGAGAGCCATAGTGGCTGCGAACCGGTGAGTACACCGGAATT | GCC |
| | | | |
| Sbjct | 122 | CCCCCTCCCAGGAGAGCCATAGTGGCTGCGAACCGGTGAGTACACCGGAATT | GCC |
| | | | |
| Query | 182 | ACGACCGGGTCTTCTGGATCAACCCGCTCAATGCCTGGAGATTGGCGTGC | CC |
| | | | |
| Sbjct | 182 | ACGACCGGGTCTTCTGGATCAACCCGCTCAATGCCTGGAGATTGGCGTGC | CC |
| | | | |
| Query | 242 | CGAGACTGCTAGCCGAGTAGTGGTGGCTCGCAGAACGGCTTGTGGACTG | CCTGATA |
| | | | |
| Sbjct | 242 | CGAGACTGCTAGCCGAGTAGTGGTGGCTCGCAGAACGGCTTGTGGACTG | CCTGATA |
| | | | |
| CDS:polyprotein [Hep | 1 | | M S T N P K |
| Query | 302 | TGCTTGCAGTGCCCCGGGAGGTCTCGTAGACCGTGCACCATGAGCAC | GAATCCTAA |
| | | | |
| Sbjct | 302 | TGCTTGCAGTGCCCCGGGAGGTCTCGTAGACCGTGCACCATGAGCAC | GAATCCTAA |
| CDS:core-neo fusion | 1 | | M S T N P K |
| CDS:polyprotein [Hep | 8 | Q R K T K | |
| Query | 362 | TCAAAGAAAAACCAAA | 377 |
| | | | |
| Sbjct | 362 | TCAAAGAAAAACCAAA | 377 |
| CDS:core-neo fusion | 8 | Q R K T K | |

Score = 189 bits (98), Expect = 2e-43
 Identities = 98/98 (100%), Gaps = 0/98 (0%)
 Strand=Plus/Plus

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|-------|------|--|------|
| Query | 9508 | GGTGGCTCCATCTTAGCCCTAGTCACGGCTAGCTGTGAAAGGTCCGTGAGCCGCTTGACT | 9567 |
| | | | |
| Sbjct | 7892 | GGTGGCTCCATCTTAGCCCTAGTCACGGCTAGCTGTGAAAGGTCCGTGAGCCGCTTGACT | 7951 |
| | | | |
| Query | 9568 | GCAGAGAGTGCTGATACTGGCCTCTGCAGATCAAGT | 9605 |
| | | | |
| Sbjct | 7952 | GCAGAGAGTGCTGATACTGGCCTCTGCAGATCAAGT | 7989 |

CPU time: 0.15 user secs. 0.04 sys. secs 0.19 total secs.